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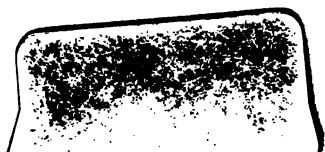
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INSTINCT
AND
REASON.



Instinct and Reason

DEFINITELY SEPARATED;

AND CONSEQUENTLY INCLUDING

AN ANSWER TO

“THE *VEXATA QUÆSTIO* OF BRUTE REASONING,”

WHICH HAS SO LONG PERPLEXED THE ABLEST WRITERS
ON THAT IMPORTANT POINT.

BY GORDONIUS.



LONDON:
EFFINGHAM WILSON, 11, ROYAL EXCHANGE.

—
1852.

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INSTINCT AND REASON

DEFINITIVELY SEPARATED.

INTRODUCTORY EXPLANATION.

I VENTURE on this thorny subject, because I have never seen any dissertation on it that meets my views. The writers appear to make instinct the *sole* guide of all the brutes, which I contest; and yet, when they come to treat of “sagacity,” they relate such astounding instances of intelligence, and even of design and arrangement, that they are evidently embarrassed. As they cannot presume to invest them with Reason, though one writer does actually venture so far (!), they then speak of something partaking of its nature, for which there is no recognised or specific name; and thus they leave their readers little in the shape of positive information. Nor do they maintain a consistent explanation of instinct, for they make man act by it on many occasions. . . As their views are, therefore, so unstable, and so opposed to fixedness, it is no wonder that

they should fail in their attempts to lay down a system.

Since indecision, on a subject like the present, cannot, even when aided by eminent talents, be expected to accomplish much, I set out with the positive assertions, That man acts entirely by Reason, and does nothing whatever by instinct, which is exclusively confined to the brutes ; and, That the higher orders of them, however seemingly intelligent, never make any approach to Reason.

If this can be established, and I think it can, it will draw the desired line of distinction between ourselves and the brutes ; by which I mean, all animated creatures except man. I do not, however, pretend to a regular discussion, because I feel that I have not the talents for such a task—on the contrary, I offer my essay merely as materials for others possessing the requisite abilities. They will be a considerable help in the formation of a system ; for hitherto the actuating powers of man and brute have been, in my humble opinion, mixed together in a manner not very creditable to the general advancement in scientific research.

PART I.

OF THE BRUTES.

CHAPTER I.

INSTINCT.

I COMMENCE with the brutes, because they appear to offer the best preparative for the present investigation. They have, besides, a prior claim, on the high authority of Genesis, for we there find that they were created before man; but this I mention merely in passing, as at least some kind of answer to those who may cavil at my arrangement.

By instinct, I mean that impulsion which forces the brutes to certain actions, movements, or works, and over which they have no control. Crows (rooks?) make their nests on the tops of high trees, and use sticks in their construction, as crows have ever done since the first creation; while other birds make

theirs in bushes or underwood, and of moss, leaves, wool, or such soft materials. Others, again, as the rail or partridge, form theirs on the ground, in meadows or corn-fields, and, however extensive their excursions for food, they will dart with unerring precision on the very spot where the nest lies. Bees make their combs in hexagon cells, and go through all their wonderful economy, precisely as their predecessors for countless ages; and the silkworm also proceeds without variation. The common spider weaves its web in a corner, and under shelter, while the speckled or garden kind makes it vertically, like a curtain, from one branch to another, and where it is constantly liable to destruction from severe wind or rain. I need not mention the surprising works of the beaver, which are all by instinct; nor the downright drudgery of the woodpecker, that toils like a slave. So the migratory birds go to warmer climates, and return, at certain times; and herrings and pilchards visit various shores periodically, regardless of the huge gaps constantly making in the shoals by hungry fishes—on they press, and close up their ranks, for they must fulfil their *mission*. Salmon leave the salt for fresh water to spawn, while, for that purpose, eels go from fresh to salt; and the turtles, though not distinguished swimmers, cross the bay at Honduras, about four hundred miles, to the Cayman isles, near Jamaica, to deposit their eggs in the soft sands on those shores. There are

innumerable other instances of instinct; but these will suffice to explain here what I mean by that power, especially as I must occasionally advert to it in the course of this essay. A particular definition of instinct will be found at the end of this chapter.

But it is highly important to observe, that the satisfying of hunger, thirst, sexual desire, or the customary evacuations, must not be confounded with instinct. They are only natural wants, or functional operations, which are not confined to particular times, and which are equally common to man. As well might it be said that, when fatigued, we sit or lie down by instinct, or that we sleep, cough, sneeze, spit, hiccup, or cry when wounded, by instinct! It is from such confused grouping that we have so many misconceptions and false descriptions of it; and our only chance of correctness is, by applying ourselves to discriminative separations.

The love of offspring is so scantily disseminated that it seems to be, as a powerful instinct, almost confined to the hatching birds. There it is, indeed, seen in all its strength. For, besides making the nest, there is the patient sitting, and the vast labour of supplying the young ones with food. Nor does the parent leave them till they are fully able to provide for themselves; and the male often assists, even to take turn in sitting. It is very different with the beasts, or the class *mammalia*. The female feels her teats oppressed with milk, and finds a relief in having it drawn off;

but when that is accomplished, and the young begin to look for other food, she waxes indifferent, and, if they tease her, will, in some instances, even send them away with blows. Thus her affection is originally based on self-ease—it arises from a natural want, and it barely comes, at least in some cases, within the precincts of instinct. Now let us glance at the rest of the brute creation, and see what they are doing in respect to love of offspring. Comparatively very little. The fishes, always remembering to exclude the whale, drop their eggs or seed where convenient, or sometimes by instinct in a particular place, but, after that, they take no further trouble about them. Every one has heard the accounts of the cod—that a single one has contained three millions of eggs, and that, if they all came to life, the sea would, in a short time, be insufficient to contain them. But by far the greatest part is devoured by other fishes; and what escapes and matures forms just an adequate supply for the ordinary purposes. Let us now turn to the innumerable tribes of insects, and we shall find that love of offspring is, with few exceptions, totally unknown to them. The female is indeed generally guided by instinct, as to where to lay her eggs, but after that her task is done. There are not many exceptions even among the viviparous insects, for the black beetle has been observed to emit her young when crawling about, and they have immediately run or rather *rolled* away from the light, without her

making any attempt to follow them. If we look to the reptiles we shall find no love of offspring ; for the serpents, lizards, crocodiles, simply lay their eggs where the heat will vivify them, and never mind them after ; and every one knows that the frog abandons her spawn to chance. Even some birds that do not hatch are as indifferent concerning their eggs, and what can the roguish cuckoo know about love of offspring when it coolly evades all parental cares, and stealthily uses the nest of some other bird as a kind of foundling hospital ? Birds have no instinct to recognise their own eggs, for the common hen will sit the usual time on an oval piece of chalk, as was remarked by ADDISON, above one hundred and forty years ago, in one of his Spectators. Perhaps I ought, in strict justice to the cuckoo, to mention what its defenders allege, that it never lays its eggs in the nest of any bird except such as feeds on what is congenial to the cuckoo. That it is impelled by instinct to this, we can readily believe.

It thus appears that, considering the prodigious variety of animated creatures, love of offspring bears only a small part in their continuance. This will, no doubt, much surprise those who are accustomed to extol its "*universal diffusion throughout, as an admirable provision against the extinction of any species.*" Yet I have done little more than to state facts which they previously knew, and, if they came to an erroneous conclusion, it was from not giving

them due consideration. But those worthy people need not be at all uneasy, for, where there is little or no love of offspring, an allwise Creator has provided efficient safeguards to prevent the annihilation of any kind or species, except those that fulfil their *part* or destiny, and are no longer of utility.

REPARATIVE INSTINCT.—Connected with regular construction, the instinct is extended to the repairing of any derangement, damage or accident that may occur by wind, rain, or various other causes. On this so much has been written, and such uncommon theories founded, that, were I to pass it unnoticed, many would believe that I was afraid to encounter so portentous a subject. But, if I have any reluctance, it is because I feel myself compelled to differ from eminent men with whom I cannot at all compare. In their unbounded admiration of brute “contrivance,” they have gone so far as to call it a kind of “SEMI-REASON,” while I assert that it is only part and parcel of the ordinary constructive instinct which, without it, would be too contracted for the main design.

To begin with birds—there would be very few of their nests if they had not a reparative power, for we may fairly assume that only a small number are begun and completed without some intervening accident, trivial or serious. Our attention is called, in glowing language, to the wonderful skill of the beavers in remedying the numerous mishaps that

occur in making their dams or breakwaters, but the plain fact is, that there would be none, if the instinct in constructing them did not also include a large share of *mending* ability. I have myself seen a small garden-spider suddenly roll a monster fly in its web, by whirling it round with amazing velocity, but it preferred the labour of repairing the damage to losing a carcase, like a sheep to a man, and which would serve it as food for a good while. There are also instances of providing against what may be called consequences, rather than direct or immediate injury. Bees promptly kill any intruding insect, and, as they are very sensitive to ungenial smells, they always eject the dead body outside the hive. But M. MIRALDI relates what is still more interesting. A snail having entered a hive was, of course, instantly killed in its shell; but the bees, finding that too heavy for removal, covered the orifice with something like wax to prevent any bad consequences from the odour of decay. Here was no injury whatever to *works*, but, as the general safety was involved, the bees provided against it with the same view that we use leaden coffins. Wherever the preservation of a species is concerned, however remotely, we find it guarded by a conservative instinct, sometimes remarkably precautional; and we need not wonder at what *seems* to be invention and contrivance in senseless creatures.

Among the numerous definitions of instinct, the

best one that I have found is by KIRBY, who says, "Instincts are unknown faculties implanted in the constitutions of animals by their Creator, by which, independent of instruction, observation, or experience, and without a knowledge of the end in view, they are impelled to the performance of certain actions tending to the well being of the individual, and preservation of the species." Some other definitions come to the same conclusions, only by a roundabout, abstruse, crabbed, verbose or over-learned, diction, unsuitable for ordinary comprehension, as though the writers were half afraid of being understood by the vulgar.

CHAPTER II.

FREE AGENCY.

BESIDES instinct, which is uncontrollable, the brutes have a certain amount of free agency, for, without it, life would be too insipid and monotonous even for unreasoning creatures, and especially for those of the higher order. By this I mean, that choice which they have of devious movements, or actions, without regard to those of their fellows or congeners. It is quite different from instinct, for that makes them all do alike. Birds generally have a large share of it, as they may be seen in all directions and positions ;

and, though sheep are notoriously gregarious and simultaneous, if a man walk by a number of them that are lying down, some will instantly rise and make off, while others, unless menaced, will not stir. Two dogs belonging to the same house are let out together, and both take different ways; and, in like manner, one cat shall pass its chief time asleep, while its companion is all activity, hunting rats or mice, or rambling on the house tops. A publican's dog in London took a walk regularly every evening, and it was never known to go the same way twice successively—it was continually varying its perambulations. I know where there is a cat that never kills mice. It catches, plays with, and throws them up as usual, but contrives not to hurt them in the least; and they would consequently always escape only for its constant companion, the house-dog, which has no qualms about life-taking. Though very large and strong, it does not meddle at all with rats, which it leaves entirely to the *care* of the dog. Whence this deviation from general cat practice? If it be not free-agency, what is it? Most certainly it has nothing to do with instinct, nor with Reason, whether in a “semi” or *quarter* degree.

This brief review will, I believe, explain sufficiently clear what I mean by free agency; and I shall now observe that it is very unequally, though no doubt wisely, distributed among the brutes, according to their different conformations. Some, as the snail or

worm, have very little, while others, as the oyster, cockle, barnacle, would appear to have absolutely none, and, among beasts, the sloth is so sparingly supplied as to excite both our pity and wonder. Free agency leads to what is called "sagacity," but that is too important for a passing notice, and will occupy a separate article.

Why do some sparrows prefer town to country? I say *prefer*; for it is clearly a choice referable to free agency, as there were no houses at the Creation, nor for some time after the flood. Free agency sometimes slightly affects even instinct itself, for some swallows build their nests in chimneys, others at the tops of windows or under the eaves, and the martlet, with incredible labour, on the face of a straight wall! Owls love to have their haunts in ruined abbeys, or roofless mansions, though there were, *ab initio*, neither windows, eaves, walls nor abbeys; and we know that chimneys are a modern invention.

CHAPTER III.

TEMPERS AND DISPOSITIONS.

IN the wild state, the brutes appear to us all alike as to tempers; but that is because we have not the means of investigation. It is only by domestication

that we can arrive at any credible information, and then we see quite enough to make us change our opinion. From the extensive utility of the horse, we are particularly well acquainted with it, and there we find a surprising variety. Some are vicious, tricky, stubborn, wicked, treacherous, and others entirely the reverse. If the rider fall, some will stand still, and afford him every assistance for remounting, while others will kick him as he lies on the ground. It is the same with other animals, as far as we have the opportunities for observation.

Nor is this altogether attributable to blood or descent, though that has a certain influence on spirit and physical power. Thorough-bred racers have, however, different dispositions; but, to confine ourselves to ordinary horses, we find that, of two foals from the same sire and mare, one shall be gentle and tractable, while the other severely tests the skill and patience of the most experienced horsebreaker. Of two dogs from the same brood, and reared alike, one shall be morose, snappish, dull, and incapable of any tuition, while the other is lively, gentle, and remarkably docile. So, two kittens from the same birth, one shall be cross and surly, and will scratch and bite children, while the other bears all their annoyances without resentment. Different tempers have been observed among our tame fowl and caged birds; and some parrots have brought extraordinary

prices from their superior docility and aptness for instruction.

Since, then, no doubt exists of different tempers in beasts and birds, is it not reasonable to presume a similar variety among fishes, insects and reptiles? Possibly the trainers of the "industrious fleas" find different tempers, and degrees of *intelligence*, in those insects; but I think that I have said enough to establish my point. It is of great consequence to the present inquiry. Tempers and dispositions have nothing to do with instinct, and too much cannot be said towards clarifying our notions on that head. In proportion as we separate from instinct what does not belong to it, the clearer we shall perceive what it means.

But we are not wholly without proofs of different dispositions in the wild state. We are assured that *some* crows, through laziness or dishonesty, steal sticks from others' nests, in the absence of the parents, to save trouble in constructing their own, to which work they are forced by instinct. Among some kinds of hawks and owls it is found that many, perhaps the majority, instead of making nests themselves, take the used ones of crows, magpies, ravens, or even squirrels, and that, however greatly dilapidated, they never give them the least repair! But they could not have this option only that there are different degrees of strength in instincts. It appears

that those hawks and owls are of a degenerate species, and the instinct of nesting must be, comparatively, weak or imperfect, for otherwise *all* would be forced to build nests. It furnishes, however, a proof that wild brutes of the same species are not alike in dispositions. House swallows will lay in the same nest for years; and it has been observed, that they depart about a fortnight sooner than those that have to construct a new one; but I believe that this bird uses none except what is made by itself. Some kinds are rigorously compelled to build a new one annually—the chimney swallow, for instance, is under such stern rule in that respect that its empty nests may be seen in tiers, as the last is always at the top.

CHAPTER IV.

MEMORY.

SOME writers have taken no small pains to prove that the brutes are endowed with memory. I only wonder how it could be ever doubtful. It is by their memory that they become useful to us. Without it, the horse would be of little utility, for that inculcates submission. We can, indeed, direct it by spur, whip, and bridle, but these would not avail, if it did not remember what it was previously taught. It is by memory that dogs are trained for so many useful

purposes ; that cats are taught not to soil the parlour, and parrots to pronounce so many different words. Though we do not ask much from cattle, sheep, pigs or poultry, they would, without memory, be very troublesome to manage. Some have it much sharper than others ; and the docility and aptness for tuition appear to be in proportion. The elephant is distinguished for its retentive memory ; and it can be taught to do anything of which its unwieldy body is capable.

It is remarkable that BUFFON denies memory to the brutes, though, in describing acts, mainly recollective, of the more intelligent kind, he evidently contradicts himself ! Having made the assertion, perhaps he, like many eminent authors, did not like to unsay it, and thus lays his judgment open to severe animadversions from inferior writers, after producing the most comprehensive work on Natural History that the world ever saw.

We cannot yet decide whether it was obstinacy, or a bluntness of memory, that made hawks so hard to be trained ; but most certainly the falconers had a laborious task. They were obliged to enforce obedience by a long continuation of the severest punishments ; and a well-taught falcon always brought a very high price. Sometimes it became so excited or passionate, that the falconer, to prevent sudden madness, was obliged to plunge its head into cold water !

CHAPTER V.

ATTENTION.

THE brutes have this *faculty*, for I believe I may here properly use the word, much stronger than man. To the smaller kind, it serves as a protection from danger; and to the larger as a help to discover its prey. The cat has it most peculiarly fine; for, though it is remarkably fond of sleep, one cannot say that it is ever in that state. It only dozes, and even that very lightly, for it is then all attention; and, if a strange foot enter, or a strange voice speak, you shall see an ear turn partly back—plainly indicating that it is not what we call asleep. The brutes generally, indeed, rather slumber than sleep, and their attention is easily aroused, and quickly on the alert.

This attention is usually helped by a great quickness of sight and hearing. It is only by an instantaneous bound, that the cat can take birds; for, though engaged in feeding, they can see any ordinary advance. Where the eyes are stationary, as in some insects, they are furnished with many, for seeing in all directions—the common spider has eight, but other insects are found with a much greater number. Such aids are, however, more with a view to protection; for they are not necessary adjuncts to attention, as is proved by the horse, whose sight is often very indifferent. When standing motionless under a cart,

before a house, for an hour together, it will instantly proceed on hearing the usual command to go on. *Among the brutes, there is nothing resembling our "absence of mind."* This is of great importance to the present investigation, as it seems to prove, if any proof were wanting, that they do not think. If they had thought, they must have Reason too, but that is confined to man.

CHAPTER VI.

. SWIMMING.

It is commonly believed that all the beasts or quadrupeds swim by instinct ; but that is founded in error. They swim because they cannot raise their fore-paws above water ; for their first trial is nothing but a continued effort to do so : but, finding that they advance notwithstanding, they soon give up their fruitless attempt, and they afterwards swim with ease. But all beasts do not swim. Every one knows what a contemptible exhibition a pig is in the water. Having only a sort of straight-forward movement, and little or no expansion of its fore legs, it keeps pushing them upwards, by which it so galls and lacerates its throat, that, if not near the bank, it inevitably sinks, and is drowned. Nor can the mouse be said to swim, as we see that it soon sinks, from its peculiar conformation, when it falls into water. The

movement of swans or ducks *on* the water, does not come under the head of instinct; for that is as natural to them as it is for fishes to live underneath, or for the amphibious creatures to walk on the bottom of a river, and also on dry land. No one says that we live by instinct on the earth—the greatest sticklers for instinct would hardly be so ridiculous.

But we find that savages generally can swim, especially those who live near the coast, or in the neighbourhood of considerable rivers. This may arise from their seeing that the beasts keep their fore paws under water; for untutored man derives much of his knowledge from attentive observation. It is, however, a great reproach to us who vaunt our science and civilisation; for, though we know by reading or instruction that, if we raise up our hands, we make ourselves specifically heavier than the water, and must consequently sink, we require several trials before we get sufficient confidence to keep them below. Probably the men in *learned* Europe who swim are fewer than those who cannot!

CHAPTER VII.

HOME-FINDING.

WITHOUT intending a pun, I am forced to this *homely* word, because I cannot find a better. One

writer calls it Epizooty but I doubt its propriety, for the French, who are good authority in natural history, explain it as a malady or contagion among animals. I mean that power by which the brutes find the way, under all circumstances, to their haunt, den, hole, nest, hive, or whatever may be their home. As this is an instinct, I may be asked why I did not mention it under that head; and I shall observe that, as it is the only one that is universal, I have deemed it worthy of a separate notice. But no apology at all is necessary, if we regard it as an additional *sense*, and to which it can lay a fair claim.

This is truly a most wonderful instinct, and a great compensation for the want of Reason. It does not depend on sight, for the pigeon has been taken above a hundred miles in a dark cage, and, when liberated, has flown in a straight line home; and it surely is not the limited vision of the bee that directs it to its hive, after its extensive rambles in quest of honey. A cat, condemned to banishment for repeated breaches of decorum, was taken in a bag by a trusty servant, on a dark night, through at least twenty streets, lanes, and courts, and thrown into the deep area of a private house full a mile off, and it was actually home before him, though it was never till then outside the front door. If you see a worm, beetle, or other insect crossing a path, in vain you try to turn it back; it knows whither it is going, and will proceed while it has life or motion. Home-

finding is not lost, nor even impaired, by domestication, though its necessity or utility would then seem to be at an end. It only requires that the beasts or fowls have anything like a range, though it be only a paddock, yard, or small field, from their place of rest at night, or even the liberty of going through a house, and they will, when they stray, find their way home as well as in the wild state. A bird reared in a cage will, of course, be confused when it gets into the open air, which is no wonder when it was never before outside its small prison. It would be curious, however, to ascertain, supposing the other birds not hostile, whether its home-finding was lost for want of any exercise of that instinct. It remains also to be ascertained how far the home-finding of those cats and dogs that are reared in a single room, and are never suffered to go out of it, is affected.

This is quite different from the instinct by which the dog traces its master's footsteps, and which I shall, for brevity, call by the French term *piste*. Of this, there is no chance of our ever having a clear conception. We say it is a very fine scent. If the man went barefoot, we might believe that; but he may put on new boots, and all his clothes new, without in the least affecting the *piste*. Were it scent, it must be so exquisite that the dog could not bear bad smells, yet no animal is more indifferent in that respect; for it sometimes disgusts us by its

nasal coarseness, and will sit contentedly amidst the vilest odours. As we in vain attempt to describe the constituencies of home-finding, it is the same with respect to the *piste*. The dog turns, by instinct, about the spot on which it intends to lie down, but why it does so, or what the use of it is, we shall never know. When two strange dogs meet, they make a most minute olfactory inspection under each other's tails and elsewhere, and no doubt it gives them much satisfactory information; but what the nature of it is must remain for ever unknown except to themselves. Dogs have sometimes attacked and devoured human beings; but they undeviatingly reject the palms of the hands and the soles of the feet. Why they do so, in opposition to the lion, tiger, panther, or other beasts of prey, must be always to us a secret. The cat, unless reared in a single apartment, evinces the most ardent curiosity to see every room in the house; and it has been known to watch for hours at a door till it was opened, but then one look suffices; it never requires more. Some suppose that, in a wild state, it makes a similar inspection in the neighbourhood of its haunt. A new piece of furniture also arrests its attention, and it will, if possible, walk round it once; but here ends its curiosity. To investigate such instincts would be only a loss of time. We know the *use* of nests or webs, of hatching, or home-finding, but we cannot offer even a surmise at the intent or meaning of other instincts.

But we may fairly inquire what the *piste* can serve in the wild state, as the dog has then no master to follow? Is it, like barking, only brought out by domestication? It is said, that the wild dog never barks, though I know not whether that has been confirmed. We have but one exception, the bull-dogs; for they so very rarely bark, that they may be accounted silent. The wild dog howls, though it does not bark; but our bull-dog does neither the one nor the other.

CHAPTER VIII.

ANTI-DISABLEMENT.

THIS is also an instinct; but I give it a detached notice on account of its peculiarity. I am here compelled to invent a name, because I can find none sufficiently concise. By anti-disablement I mean, that instinct which impels the brutes to kill any of their kind that may be accidentally hurt, or disabled by weakness. When the crabs in parts of Africa, and elsewhere, leave the sea for their annual excursion to the high grounds near the shores, if one fall, or be unable through weakness to continue the march, it is immediately despatched by those nearest. Travellers who have been where the wild buffalo abounds have sometimes observed one, that had hurt its leg,

standing near a tree, lying down, or practising some other *manœuvre*, till the herd passed—well knowing that death would be the penalty were its lameness discovered. During very severe winters when the wolves are obliged to give up their solitary habits, and to hunt in packs, if one be hurt, however slightly, should any blood appear, the rest not only kill but devour it also. The ants will kill any labourer that is not able for a proper day's work, though this instinct is by no means strong or general among insects, except those that live in communities. If a bird escape from a cage into the open air, it is soon recognised, from its *awkward* manners, as a stranger, and the other birds, indiscriminately, put it to death, as this *crime* comes "within the meaning of the act." For, though there be no bodily injury, the bird is incapacitated for a wild life, or procuring its food.

The tender-hearted may deplore this as "an additional proof of what seems too well established, that cruelty is most extensively diffused throughout the whole animated creation." But may we not, without any great violence to humanity, attribute it to mercy? The disabled brute could no longer fight its way, nor in many instances, get its food, nor defend it if found and would only drag out a miserable existence. What could the caged bird do in the wide expanse? It must starve; and such as the canary would perish for want of shelter alone. Since the brutes have no

hospitals, death is clearly a mercy to the disabled. I am supported in this view by the fact, that domestication obliterates the instinct in question ; for the beasts or fowls that we keep for our use, being then provided with food, drink and *lodging*, care not how mutilated any of their associates may be, and never molest them on that account. There are even remarkable instances of their rendering assistance to one another, and better entitled to credit than the well-known story of the dog that was cured of a sore leg by a surgeon, and brought another to him afterwards labouring under the same affliction.

We ourselves had formerly, in "the good old times," a strong tincture of anti-disablement, when we smothered our unfortunate fellow-creatures, who were afflicted with hydrophobia, between two feather beds. There are, I believe, persons who can remember when this was permitted. Let us not, therefore, too hastily accuse the brutes of cruelty for doing that which we so long followed up in principle. They are, otherwise, heavily charged with pitiless and even wanton barbarity, and they are entitled, in common justice, to the most favourable interpretation that any of their acts may bear.

CHAPTER IX.

DOMESTICATION.

HAVING already alluded to this at different times, I have now little to remark, except on the subject of food. Here the changes that we effect are truly surprising. The elephant, in its natural state, is so fond of grass, that it seeks nothing else, and water; while we bring it to eat bread, boiled rice, fruits, vegetables, and even cooked dishes, and to drink and like wine, spirits, and beer. Like the elephant, horned cattle, when wild, live on grass; yet we make them eat turnips, mangold wurzel, oil cakes, and various green crops. As to horses, they are now where now in a wild state, except in Tartary, and also in South America, where some brought over by PIZARRO, having escaped into the woods, soon multiplied, so that they are now seen in hundreds together. We know, however, that grass and corn are their natural food, yet we have made them eat and relish a loaf of bread soaked in ale, and other strange things. Sometimes we effect changes that are wonderful; but they are only isolated, not general cases, as to make a cat or dog like pepper and mustard with its meat. Our power is, however, limited, for we could not induce either cat or dog, by force or stratagem, to eat raw oats. There is a she-goat in King's-head-yard, Duke-street, Lincoln's-

inn-fields, that eats tobacco with avidity, and will hold up its nose where men are smoking, in order to inhale the fumes. I have thought this worth mentioning, because the brutes generally, down to the very insects, evince a strong aversion to tobacco under any form ; nor would I venture to state the fact, till I ascertained it myself. But I have since heard, on good authority, that another goat, in Great Queen-street, adjoining, was brought to eat tobacco, and also to drink gin, till it was so drunk as to be unable to stand. If we cannot praise such experiments, they are interesting, as showing how far nature can be counteracted in domestication.

When the brutes are in a wild state, they are guaranteed, by instinct, from eating anything poisonous ; and it would be the same in domestication, were the poison not concealed or disguised. In that way man himself is deceived, and has often fallen a victim to his own ingenuity.

It is presumable that there are, in the wild state, many instincts that are not exercised, because useless, or impracticable, in domestication. Horses and black cattle appear to have hardly anything of decided instinct ; for even the sheep have more. The dog and cat, perhaps, retain the most of any ; but, as regards my objects, any particular investigation could not be of much utility. It may be interesting, however, to notice that some cats give lessons in mouse-killing to their kittens, though that seems to be supereroga-

tory. For those that have been taken away early, and reared up without any instructions, have arrived at eminence in mousing equal to any that studied under the ablest professors. But, of all animals, cats are the least changed by domestication—the chief difference consisting in being tame; and no creatures could return to their original forests with less inconvenience. Tuition is there necessary, as the kittens are exposed to enemies, and cannot venture to walk about, as in a house, till they get strong. The old cat, therefore, only follows, needlessly in domestication, an instinct that is highly prudent in the woods.

Domestication prolongs life in brutes, and brings them to feel the infirmities of age, from which they are exempt in the wild state. They are then mercifully death-struck in the plenitude of strength and health, like our cats, which are often found dead in the morning, though vigorous and active the previous evening.

CHAPTER X (*extraneous*).

MIGRATION OF SWALLOWS.

THOUGH I mentioned migration in the first chapter, I advert to that of swallows particularly, for the purpose of introducing some remarks by the *Abbé Huet*,

who wrote the very curious work on Doubting. The extract is given from the translation of No. 80. in *Huetiana*, or miscellaneous articles by the Abbé:—

The swallows of Sweden, on the approach of winter, plunge themselves into the lakes, and remain there asleep and buried under the ice, till the return of spring. Then, being awakened by the new heat, they leave the water, and take their ordinary flight. While the lakes are frozen, if the ice be broken in certain places that appear blacker than others, there will be found heaps of swallows, cold, asleep, and half dead. If they are warmed between the hands, or before a fire, they begin to give signs of new life; they stir and stretch themselves, and will not fail to fly away. The common people believe that the water of the Swedish lakes has the virtue of converting into swallows the leaves that fall from the trees in autumn. In other places they retire into caverns and under rocks. Between Caen and the sea, along the river Orne, are many of those caverns, where they sometimes find, during winter, clusters (*pelotons*) of swallows suspended from the arch, like grapes. The same thing was long ago remarked in Italy; for *Pedo Albinovanus*, in the elegant elegy that he wrote on the death of *Mæcenas*, proposes, as a mark of winter, the retreat of the swallows into the rocks.

As the retreat of the swallow is still involved in doubt, and as *HUET*'s works are rather scarce, I think that this extract will be acceptable to many of my readers. I give it without comment; but I may remark, that the Abbé was a profound observer, and that his treatise on doubting was such an extraordinary accumulation of facts, that he left it as a post-humous work—being afraid that, if published in his

lifetime, his religious orthodoxy might be called in question. It was this that probably suggested to Archbishop WHATELY his very ingenious treatise, "Historic Doubts concerning Napoleon Bonaparte," which was so ably carried out, that many believed his Grace to be really serious!

CHAPTER XI.

SAGACITY.

I AM not disposed to quarrel about words when their meaning is understood; and I, therefore, freely admit Sagacity, Intelligence, Cunning, Artifice; nor do I pertinaciously denounce the more questionable attributes of Plan, Design, Arrangement, Contrivance. I am only decidedly opposed to Thought, Reflection, or anything of a mental or intellectual character, as those belong solely to Reason, which is, *exclusively*, allotted to Man.

The propensity to overrate brute sagacity is rather remarkable. It is common to hear a man say, "My dog can do everything but speak," and he says the same of a cat, horse, goat, or any other creature to which he may take a particular fancy. He never considers, that no dog was ever yet brought to under-

stand a language. By its superior docility and memory it can be taught to know the import of certain words; but every new command requires a new tuition. A German is mentioned who made a dog utter about thirty words, but, supposing that true, what does it signify? Nothing. Speaking, or pronouncing words, does not imply intellect; for, in that respect, the parrot or magpie is not above the sparrow or wagtail. Man alone can use words so as to signify his thoughts. It is true that some brutes have vastly more sagacity than others; but, as none of them can think, they are all greatly inferior to man.

This tendency to over-estimate brute sagacity too often warps the judgment. A kitten was reared in the sitting-room of a lodger, who lay in an adjoining chamber. The milk for his breakfast, which was in a high narrow jug, having been a few times missed, suspicions were excited, and the cat was discovered dipping its paw in and licking it, and so continuing till it got out nearly all the milk. This was proclaimed as a surprising instance of invention, because there was undoubted proof that the animal had never seen any other cat do the like; but, for my part, I thought that there was nothing in it at all wonderful. The cat could see the milk in the jug, but could not get its mouth within an inch or two of it; and what more natural then than to poke the paw in, and, finding that it reached the milk, to lick it, and so repeat the process? The thing is by no means un-

common; for some cats do it though others do not, and besides the animal is eminently distinguished for sagacity.

Whatever may be said of the elephant, dog, fox or beaver, rats will yield to none for everything coming under the head—Sagacity. Those who live in houses, stores, farms or premises, infested by them, can tell wonderful stories of their artifices, suspicion, cunning, and untiring perseverance. It would, therefore, answer no useful purpose to enter on that subject, since others could fill volumes with well authenticated instances; and I shall content myself with one of a different kind, in order to elucidate my own views. In a house that swarmed with those destructive vermin, I baited a large circular cage, made entirely of iron wire, and, in the morning, there were in it four large lively rats, and a fifth lying dead, evidently by violence, with nearly half the flesh gone. As to the cage, the only thing in the nature of trap or deception was the entrance, which was a light hanging door that slanted inwards; and, easily yielding to the slightest forward pressure, it of course again resumed its original position. We may fairly presume that the five did not rush in at once, and the first one or two that entered could, therefore, see the others coming in. Why did they not then go out, when they saw the door raised? Because that, simple as it appears to us, required something

like thought, though they could do other things apparently much more ingenious.

Now can any one doubt if the most stupid savage, short of being an idiot, went into an enclosure surrounded by insurmountably high walls, by pushing a hanging door, even supposing it so low as to oblige him to go on all fours, and thus to put him as nearly as possible on an equality with the rats—can any one doubt that, on finding himself entrapped, he would raise the door by which he entered, and so escape ?

Those who lose themselves in admiration of brute intelligence, and are in doubt whether it does not sometimes amount to Reason, would do well to ponder on this. They will find that the most sagacious brutes, when acting beyond their settled instincts, never do anything through deliberation. Whatever they do is by immediate decision. For, though some of their acts may seem to include a certain regularity of arrangement, every portion is fixed on at once; and nothing is the result of a matured plan, as that would demand thought, and thinking implies Reason. Many things are attributed to sagacity which should be referred to memory. We are told much of the "half-reasoning elephant," and how it treasures up an affront for months till it gets an opportunity of revenge; but that is only a vindictive application of memory. The cat or cur will run, at any length of time, from the person who ill-treats it; and fear only prevents it from resenting the

injury. But, while I admit the extraordinary sagacity of the elephant, can we for a moment suppose that, if it had a tincture of Reason, it would submit to be the slave of such a pigmy as man, when it could so easily go, at least in the East Indies, to the forests and enjoy its liberty? The experienced sporting dog must know that it is the gun that kills the game; yet though, like other brutes, it flies from what *appears* to be annihilation or danger, if the piece be presented towards itself it evinces no fear. Not so the savage, who, for the first time, sees a bird or beast killed by a shot—he dreads death as the consequence of pointing the gun afterwards at himself. Why this difference? Because the rude “ignorant” savage has Reason, and the educated “intelligent” dog has none; and consequently no intellectual discernment.

To return, not to our *moutons* but to our rats. I shall be told, as a triumphant refutation, that they *have* escaped from a similar cage, as proved by the bait being gone. Well! what of that? If the rats, in trying every means of escape, happened to stir the door, they would, as they are distinguished for perseverance, continue to work at it, and, once they got their snouts under, the way out was open. It only happened that *my* rats did not stir the door; and they consequently remained prisoners. So far, therefore, from this being a triumphant refutation of my conclusions, it is a strong support to them, in showing

that the *humblest Reason* is immeasurably above the highest degree of brute intelligence. But I must now direct attention to the fifth rat ; because it seems to confirm a common assertion, that, when the resources of those animals fail, or diminish, they fall on one and kill it, and then on another, and so on till they thin their numbers down within subsisting limits. The circumstance of the flesh being gone, shows, however, that they eat each other also, which, though revolting, is perhaps necessary to prevent them from becoming alarmingly numerous. But this is not the only instance that falsifies the proverb, " Dogs will not eat dogs," which means, that mutual destruction, for sake of food, is unknown in the same kind. Those who study natural history, find, however, other examples of same eating same, unconnected with cannibalism—that indelible disgrace to man.

Who has not heard of the more than sagacity of beavers ? It is not only in the construction of their dams, for which they fell trees, fix posts as stays or supports, collect stones, make mortar and spread it with their broad tails, but they also build towns, with houses of one, two, and three stories, according to the number of inmates, and the room required for storing the necessary provisions. They have, besides, a kind of polity and laws ; and, in fact, they realise the phenomenon of a *civilised community of speechless brutes* ! Yet, notwithstanding all this, they have less pretension to sagacity than many of our inferior

animals; because they do little else than work by instinct. In that, there may be much for us to admire; but there is no merit in the agent of an impulsion that is resistless. The bees, considering their size, deserve equal, if not more, credit for what they accomplish. Both bees and beavers *must* go through their allotted tasks; they have no choice, for they are constrained by instinct. The rat that passes by a temptingly-baited trap, because it saw another caught in it some time past, has infinitely more merit, inasmuch as it acts so far freely, of its own "mere will and motion," and with an exercise of sagacity also. Perhaps it would not be easy to name a creature so much under the iron yoke of instinct as the beaver; and, if we cannot refuse it our admiration, it certainly has but slender claims to the meed of praise.

I am well aware, that what I have said will not be generally pleasing, because people have been long accustomed to regard the beaver as indeed the animal that "can do everything but speak." M. ALLENT goes so far as to say, that it is greatly above the savage in skill, forethought, and intelligence, but he did not observe that it can do nothing beyond its prescribed routine; while the savage *may* become a civilised man, and enjoy all the security and comforts of society—though whether that would be ultimately a positive benefit, is a question into which I shall not enter. I admit that the beaver is better lodged and

provided for than the savage, as long as it is undisturbed, but, when the hunters come, the limited extent of its energy is exposed. Those animals then evince the most disgraceful pusillanimity. Though they can bite severely, they make little or no resistance; for, if there be any of consequence, it is from the females that have young. Those that escape the slaughter go higher up the country, and drag on a miserable life in holes or burrows; for it would seem that they are incapacitated from recommencing their former labours. In that respect, they appear to be under a restriction somewhat like that of our common spider, which entomologists say can make only two complete webs. When the second is destroyed, they observe that it tries by force to get possession of a young spider's web; but, if repulsed, it becomes a houseless vagabond, and seldom prolongs its wretched existence beyond a month. The beaver, when domesticated, has proved to be rather a dull brute. Individually it can do little more than eat, drink, and sleep. Its industrial instinct is merely co-operative; for, by itself, it is incapable of any action worth notice.

I may here notice a silly theory, that, in proportion as man's Reason has improved, the intelligence of the brutes has deteriorated; and that the beaver is a solitary remaining example of their former *understanding*. Truly, there seems to be nothing too crude or absurd for your fanciful theorists.

CHAPTER XII.

SURMISED REASON.

IN Fraser's Magazine, 1851, there is a very extended and elaborate article, "Episodes of Insect Life," the undisguised object of which is to show, by an accumulation of startling facts, that even insects are capable of reasoning. After admitting that they are, however, inferior to birds and quadrupeds in that respect, as being more under the control of instinct, it proceeds, "But does Reason shine alone for man? Among the *vertebrata*, we could adduce proofs to the contrary; but our business is now with insects." This is tolerably plain. The meaning here cannot be mistaken, but, towards the conclusion, alluding to the numerous examples of insect intelligence brought forward, it is thus still more decided, "Such instances pave the way for thoughts of another world for animals." Yet what has chiefly induced me to notice the article, is the following passage:—

Dr. Darwin saw a wasp with a dead fly, whose wings obstructed its transportation. The wasp alighted with its burthen, cut off the wings, and then flew away with the carcase without impediment. Kirby, upon this, asks a question, which a Cartesian would find it difficult to answer;

Could any process of ratiocination be more perfect ? and he adds, that instinct might have taught the wasp to cut off all the wings of all flies previously to flying away with them : but in this case it attempted the feat with the wings on, was impeded by a certain cause, discovered what that cause was, and alighted to remove it.

Now I deem this to be of the highest importance, because KIRBY'S question embraces the sum and substance of all that is disputed. Dispose of that definitively; and "the *vexata quæstio* of brute reasoning" seems fairly solved. To me, the chief cause of all those difficulties arise, in great part, from not keeping in view the senses of brutes, and their other faculties besides instinct. They have their senses the same as we; the main difference being, that they use them only corporeally, and cannot regulate or direct them by discernment or judgment, as that is a mental process. But, in other respects, they have rather an advantage over us, for their sight is generally much sharper, and their hearing more acute than ours, and they know much by the smell which we do not, including what food is wholesome or poisonous in its natural state. They taste as we, and, if fishes and some insects utter no cry under pain or torture, it is because they are naturally silent; for their bodily feelings are as intense as ours. The brutes have a sixth sense in home-finding, of which we can never have a conception, and the bat was long ago *suspected* to be independent of its ordinary

sight. In the investigation of that, some cruel experiments have been practised. One *gentleman*, to make sure work, after burning the eyes out of a bat with a redhot wire, glued pieces of leather over the empty sockets, and yet it did not appear to sustain any visual inconvenience from the loss of its eyes, which would thus seem to be of minor importance. They are of use only in the daylight, which the bat dislikes, or any glare ; for, if brought into a room at night where there are lighted candles, it quickly flaps out and extinguishes them. Its instinctive sight is, therefore, the more valuable, and, though we shall never attain to its comprehension, it is, to all intents and purposes, a sense ; and, as home-finding is common to all brutes, the bat has consequently seven senses. I am aware that home-finding comes regularly under the head of instinct, and that I have put it there myself ; but its peculiarity of being in constant requisition gives it, perhaps, a stronger claim to rank among the senses, though it seems of little consequence whether we place it there, or to the account of instinct.

The brutes, generally, have sight in high perfection. Men often miscalculate how far they can leap, and have, consequently, been hurt, or soused into ditches ; but the beasts make no mistakes in that respect. Their sight tells them the extent of their powers, and, unless furiously pursued, they will always keep within them ; and they will avoid preci-

pices, holes, quagmires, or other dangers. Two of them will run past each other, in opposite directions, without any fear of collision, while two men, with all their Reason, find it difficult to prevent an encounter when meeting at a quick pace, and will dance, like fools, before one another, for some seconds, ere they can proceed. Now, the wasp, though small, has perfect sight; and is there anything to wonder at in its *seeing* that the wings of the fly were the obstruction to carriage? Its eyes would not be of much service if it could not see that, especially after *feeling* the inconvenience; but let there arise some other impediment demanding mental consideration, and then the limited extent of *undiscerning* knowledge is manifested. It is then that we perceive the great resources of Reason, and can estimate its superiorities over the faculties of brutes. The prevailing custom now is, to give numerous instances of wonderful proceedings by them, and then to deduce therefrom a share of Reason, or something almost equal to it; but, if all those instances were to be rigidly *dissected*, we should find that they could be as easily accounted for as that of Doctor DARWIN's wasp, which really did nothing at all requiring, or in the least approaching to, Reason. KIRBY says, in proof of its ratiocination, that it discovered what the cause of the impediment was, "and alighted to remove it." Why not alight rather to *see* what the cause was? That appears to be more natural and

probable, because, as remarked in page 41, the brutes do not deliberate, but promptly decide; and the wasp, on alighting, instantly saw that the wings were the impediment, and cut them off immediately. Rats, as alluded to in the same place, furnish innumerable instances of cunning, arrangement, plan, design, intelligence, sagacity, contrivance, suspicion, caution; yet the most surprising of all, when thoroughly investigated, can be explained, without any reference to Reason. Instinct, free agency, sharpness of the senses, memory and temper, will account for any apparently rational proceedings of the brutes. As to their free agency, it is too plain to be contested for every one can see that they have a certain extent of volition; and that helps greatly to those actions that appear so fraught with sense. But, with respect to Reason, I cannot admit of any compromise or half-measures. I distinctly say, that the brute have none whatever, and that *it would be quite unnatural that they should have any*. The elephant is perhaps, after all, the most *sensible* in the entire catalogue, and here is what one of its particular admirers says:—

With such resources to be a despot among the other animals, the elephant appears to despise tyranny, and it was never known to dispute that with man to whom it submits. Its submission is not, however, a slavery without condition and it forces respect from the master of all animals. It serves him with zeal, fidelity and intelligence, but will not suffer an

bad treatment, and, when ill recompensed for its devotedness, will recollect its savage state, and forget that it ever submitted to man. There is then no safety except in its destruction, and sometimes artillery is necessary for that purpose.

Now that is all true. I know that it is extremely dangerous for the *cornac* or attendant, in the East Indies, to neglect it, or attempt any imposition ; for it knows well what is its fair complement of food, and will suffer no curtailment. Yet can any one seriously think that it has Reason, seeing that it voluntarily submits to such disgraceful slavery ? Let no one instance man as a parallel. He submits to slavery because he cannot resist ; but when an opportunity occurs, as at San Domingo, in 1791, he takes terrible vengeance. But the beasts, under the greatest cruelties, never combine against man, because they want Reason. The elephant is an honourable animal, and strictly fulfils its compact of servility, but, unlike the horse, it will permit no breach on the other part. The horse works equally hard for man, but, though amply powerful to punish, it bears neglect and ill usage without any attempt at redress. For this we call it a "noble" animal—we call the subservient dog "faithful" because it bears with our ill humours, and to be kicked, but we call the independent cat "treacherous" because it immediately resents an injury, and acknowledges only friends but no "master."

The accounts of brute intelligence require to be

severely scrutinized. Circumstances deemed of no importance, but which are of the highest consequence, are often omitted, or unthought of altogether. I once experienced this myself in a very remarkable manner, respecting an extraordinary instance that I was told of caution in rats. As I could not doubt the authority, I must own that I felt staggered till, in the course of my numerous questions, a fact was casually, and only merely by chance, elicited that removed all character of mystery. And so it would be, I verily believe, with those wonderful statements of brute acts that seem like emanations from Reason, if we had always the means of probing them to the quick. Ghost-stories have passed current till the deception was exposed, but, where the refuting proofs are wanting, the spectres maintain their credit.

I have thus endeavoured to separate instinct from what does not belong to it, and, if my work be imperfect, I claim a large share of indulgence, because I believe that it is the first attempt at an unreserved separation. Whatever may be the judgment of the public, they will, I think, admit that I have opened the way, and that is something, to a more definite and more satisfactory survey of instinct than has yet appeared.

The reader will now be inclined to give me some credit for my arrangement. If I began with Man, in deference to his superiority, I should be forced to frequent desultory explanations to shew what was or was not instinct; and digressions are always unpleasant, because they abruptly distract the attention. But having commenced with the brutes, and having already discussed the question of instinct, my readers are the better prepared for the consideration of Man.

PART II.

O F M A N.

CHAPTER I.

FIRST STATE OR CONDITION.

IN whatever way we consider man our wonder is excited. Let us suppose another world, peopled and constituted quite different from this ; and that the chief or ruling inhabitants got, somehow or other, true account of our earth, they would doubtless regard it as a fable. How could they believe that a creature so defenceless as man, and so comparatively weak, should be the lord and master throughout whether in a savage or civilised condition ?

Man seems to be indeed the emblem of helplessness. His mouth is so placed as to be useless for attack or defence, like that of the beasts, or the beaks of birds.

nor have his fingers any tearing hooks, like their claws or talons. Does he attempt to kick, he only hurts his toes without injuring the foe ; and, as if to crown his personal impotency, his skin, in relation to his bulk, is so disproportionably thin, that it is cut by a scratch or rub that would not be felt by the contemptible rat. But this is not all. He is too big to hide from the ferocious beasts, nor can he insure safety by flight, for his speed is as nothing, compared to theirs. Though, as before remarked, his skin is miserably thin, it is not guarded by either fur, hair, wool, or feathers, and he would perish from cold, during the severe weather, if he did not find something to cover his nakedness. He labours under other inconveniences unknown to the better-protected brutes, but perhaps what has been said is enough to show the difficulties against which he has to contend, with apparently no provision against them.

Yet he has, in his Reason, a resource against all those deficiencies ! Though he cannot oppose his fingers to the mouths or claws of the beasts, he finds that they are capable of a powerful grasp, and he arms himself with a club from the branch of a tree. With this he fearlessly meets his brute enemies ; and it soon occurs to him to point one end, by which he has the advantage of a murderous thrust, as well as blows. Instead of fearing, he is now feared, and he walks about in comparative security. He finds that, although he has no particular cry like the beasts and

birds, that he can form an infinite variety of sounds and he therefore invents words to name various things, and afterwards verbs to connect them, for communicating his thoughts, opinions, or wishes. Here I must intimate that, however I have hitherto spoken of man in the singular, I all along meant that he should have some companions of both sexes. I was compelled to suppose him full-grown at once, as I could not carry out my *gratuitous* description if I took him as an infant from the beginning. But the reader will, I should hope, excuse this as an anomaly of necessity. I wished to trace man from his supposed first appearance in the savage state, and could not do that without some interference with routine.

After this explanation I proceed. I said that the savage, after arming himself, invents words, but that is too important for a transient notice, and will form the subject of a separate chapter. We may now observe that man is not, like the brutes, confined to any particular kind of food. He takes whatever the country around him affords, and, as he has no instinct, he only discovers what is poisonous by the caution to which he is prompted by Reason. That is so different from instinct, as to throw him constantly on his own observation or direct invention. If the climate makes shelter necessary, he has no imperative dictation as the birds for their nests, or other brutes for their burrows, or respective dwellings.

lings. He has no set plan for his hut or shed, for different tribes show different contrivances, and some are better and more ingeniously constructed than others. His Reason does not always bring him to the best decisions—on the contrary, it often leads him to very erroneous conclusions; but, be that as it may, it gives him such a vast extent of free-will, that he intimidates the more restricted brutes by its variety, and he forces them either to obedience or flight. It is chiefly by his Reason that he appears, in every place, whether savage or civilised, as the master, for it certainly is not entirely by his simple bodily power. No! even as the naked savage, he reigns triumphant mainly by the strength of his mind, his invention, and the absence of instinct.

From constructing some kind of shelter or dwelling, the savage proceeds to other works according as he finds the necessity. If he live near a wide river, as he sees that timber floats and bears great weight, he soon contrives a boat, though it is commonly, at first, only the trunk of a tree hollowed out by persevering labour. Numerous other advancements in convenience may be easily imagined, which it is unnecessary to particularise, but it is of great importance that the reader bear in mind what I have said in the third paragraph of the preceding first chapter, page 13. For I repeat, that it is by unwarily confounding common natural wants, or ordinary actions, with instinct, that such fallacious descrip-

tions of it have been produced, and such delusive theories established.

Having too little to say on Home-finding for a separate chapter, I shall dispose of it here by observing, that man has none, because it is an instinct. I admit that the savage will go for miles, and return, through dense forests where civilised man would be astray in a few minutes, and not know which way to turn ; but that is because the savage makes observations, to which we, who chiefly depend on the road or compass, are unaccustomed.

As Reason is a gift to be exercised, savage man has a tendency towards improvement ; but little is perceptible, and he remains, as it were, stationary, unless there is a considerable increase of population. A necessity, then, for something like a government arises ; and as chiefs must be exempt from work, and priests also, where there is any kind of worship, certain rules or LAWS become necessary for the maintenance of order, and the collection of *taxes* which are the avant-couriers of civilisation. But there are several intermediate steps. Captain Cook found the natives on some of the pacific islands far advanced in arts ; and there are now, in the British Museum, numerous specimens of their cloaks, caps, shields, carved spears and clubs, with other articles and manufactures, very creditable to their skill. Yet, though many degrees removed from absolute barbarity, they were still essentially savage, and far from

even semi-civilisation. We may suppose, for conjecture is open to every one, where all is obscurity—we may suppose that New Zealand was peopled earlier than Australia, because its natives appear to be, as to intelligence, centuries in advance of their neighbours; but the greater population might have had some influence. Van Diemen must be spoken of in the past tense, for we, represented by the settlers, killed all the natives except four or five that have since died. We first, say *inconsiderately*, shot them down, and then, because the rest sought every opportunity to kill us, we pronounced them to be merciless savages that must be exterminated. It is not yet settled what civilisation is, or whether it was ever established in any country, but we all speak of it as a thing that we all know. The simple Peruvians, though they worshipped the sun, and knew nothing of writing or gunpowder, were really more civilised than the ferocious Spaniards who, to seize on their gold, savagely massacred them. The aborigines of Hispaniola (St. Domingo) were substantially right when, after terrible sufferings, they came to the conclusion that gold was the real god of the Spaniards.

CHAPTER II.

THE BOW AND ARROW.

THE knowledge of the bow is so generally spread throughout the savages in various parts of the earth, and who never had any intercommunication, that some writers have attributed it to instinct ! This is, indeed, their usual resource on all occurrences for which they cannot satisfactorily account. There seems, with them, to be something of infatuation in the word—something talismanic that solves every difficulty. We surely have no necessity to resort to instinct for the origin of the bow. When the savage finds that the beasts or large birds which he wants, either for food or for their skins or feathers, constantly elude, by their swiftness, his best laid plans for their capture, he sets his ingenuity to work, to meet their rapidity. Having much to do with the branches of trees, he finds that they bear very great curvature, and spring out again ; and it soon occurs to him that, by confining the ends with a string, he could shoot a pointed stick to a considerable distance with a velocity beyond the speed of any brute. This would account for the extensive diffusion of the bow, without recourse to strained or unnatural conjecture.

But the notion of instinct here is preposterous

and untenable on any examination. Whatever is instinctive, affects the whole species or class. Were the knowledge of the bow instinctive *all* savages would know it, but there are many tribes to whom it is quite unknown. There are five in Australia (New Holland) who never knew it, but Lieutenant HENDERSON, who penetrated much into the interior, accounts for it by the fact, that, in that "country of anomalies" which seems to delight in contrarieties, the branches of the indigenous trees are inflexible, and snap like glass. This is an insuperable impediment to the bow, but savages have been found in other countries to whom it was unknown, though the trees were as well suited for its construction as the yew. All those people are very expert in throwing the spear—the natives of Australia are not behind in that particular, though otherwise very debased and stupid, and they also hurl the boomerang with much dexterity.

Humanity may deplore that the savage does not confine the bow to brutes, but that he also uses it against his fellow men, and, worse than all, that Reason leads him to the "fiendlike" ingenuity of poisoning his arrows. But I shall not join in such miserable cant, for civilisation has not much to vaunt. To say nothing of shells or rockets, it is surely more fiendlike than manly to spring mines over which the enemy stand with confidence, or to mask a cannon loaded with grape, and suddenly discharge it at the

unsuspecting advancers. Within a century we used *stinkpots* for boarding at sea, and, if we have discontinued them, it was not through humanity, but on account of their reciprocal inconvenience. We do not give up what *tells* except to make room for something more destructive, and, before we fall foul of the wretched savage, we should remember the Divine monition to hypocrites, "First cast out the beam out of thine own eye."

CHAPTER III.

FIRE.

THOSE who are anxious to invest man with instinct have a much more plausible support in fire than the bow. We cannot deny it to be very extraordinary that so many savage nations, in all parts of the globe, should be acquainted with fire, and, what is still more startling, with the same mode of production—the friction of dry sticks. But, though it is very extensively, it is not *universally* known, and that destroys any pretension to instinct. The first voyagers through Magellan's straits found the natives on the shores there totally ignorant of fire; and nothing could exceed their astonishment at the first exhibition of that element. They thought it was a terrible animal, and fled in consternation. This was by no

means an unreasonable conclusion ; for, when a pile of dry wood was lighted, the noise of its crackling, and the constant motion of the flames, concurred to give a strong appearance of life and *ferocity*. But when they found that it was confined to one spot, and could not advance, they gradually lost their terror, and at length ventured to approach the terrific *monster*. LOCKE mentions the Marian islanders who were ignorant of fire till his own time, when it was then introduced to them by the Spaniards.

This would be sufficient for my purpose ; but there are other instances on record of fire being unknown to savage people. That there is nothing instinctive in it is, therefore, quite clear, since a single exception would suffice to establish that point.

CHAPTER IV.

LOVE OF OFFSPRING.

I APPROACH this with much confidence, because I believe that the love of offspring in women is of the purest, and most dignified kind. If some of the birds and beasts, and even insects, furnish examples of great anxiety, their cares are, comparatively, soon over, and, once the young are able to go alone, all maternal attachment finally terminates. But, when

children are weaned, they are still helpless for many years, and yet the mother patiently continues her unwearied assiduity during all that time. The men, savages though they may be, offer no obstruction to this tedious superintendence, because they know that it is necessary for the continuance of their race.

The love of offspring in women is supereminently distinguished by its permanency. For, when the children no longer require any guidance or assistance, it still remains unabated throughout her life, and the last hours of her existence are marked by expressions of solicitude for their welfare. To call this instinct would be a gratuitous solecism, quite inexcusable, because not justifiable by any reasonable doubt or diffidence. No—it has none of the *ingredients* of instinct. It arises from refinement or exaltation of feeling denied to the unthinking brutes, and which can emanate only from that exclusive prerogative of mankind, Reason. It consequently does not affect my preliminary assertion, that man does nothing whatever by instinct. Woman's infant-love has not that *selfish* character described in page 13, and which may be fairly said to chiefly actuate the mammillary beasts. Whether, as a savage, she suckles her children herself, or, in civilization, she employs a nurse, her affection suffers no change. The vicarious transfer of her maternal duties, does not make any difference; and her love is equally ardent as if she

had all the labour and anxiety of rearing them from their nativity.

I deem this a very important point in my inquiry. The writers who are the most disposed to exempt man from instinct, make love of offspring an exception, and, should my arguments convince them that it is not one, my assertion will be so far the nearer to being established, That man does nothing whatever by instinct.

Amid the countless varieties of brutes, we can find only one, the stork, that evinces anything like prolonged *family* affection ! For this it was worshipped by the Egyptians, and highly honoured by the Greeks, who were glad of even a solitary example, in the unreasoning creation, to hold up as a pattern to mankind for the support of our parents. But this virtue in the stork appears to be greatly exaggerated, and strangely at variance with the ascertained facts respecting its migrations. I think I could show, that the accounts of its attention to its "aged and infirm" *parents* are inconsistent with the authenticated part of its history ; but I hardly feel warranted in entering on such a discussion, as it would necessarily demand a considerable space. We may excuse the high colouring of the ancients, who were so partial to fable, but the moderns, who profess to deal in facts, cannot be so readily pardoned for their *mythological* tendencies. The true history of the stork has yet to

be written, for the current accounts are something like our hybridous *Historical* Novels, "wherein truth is pleasingly blended with fiction."

CHAPTER V.

LANGUAGE.

I HAVE now to prove my assertion in page 56, which is in substance, That nature furnishes only the organs of speech, but no words or set phrases—leaving it for man to invent them as best suits his fancy. This I think I can do without any deviation from the Mo-saic account, and I shall come at once to NOAH in the ark, who, with his small family, we presume spoke the language of ADAM. We find that his descendants increased prodigiously in some time after the flood; that, when "the whole earth was of one language," they wantonly began a tower which should reach the heavens; that, in this impious attempt, they were stopped by the confusion of tongues, because they could not then understand one another, and that they were afterwards "scattered abroad upon the face of all the earth." But, as we have no account of any of those masses or bodies having resumed the Noahic or primeval tongue, it is fair to

presume that they invented modes of speech. I say that this is a fair presumption, because men cannot associate without a communication of thought, but as I must, necessarily, be studiously brief, I shall pass on to the fact of savage people being found in almost all parts of the globe, not only on the great continents, but also on islands, all speaking different languages, all immersed in the most dismal ignorance of religion or art, and all without the slightest vestige of tradition as to their origin. It is puzzling enough to account for all this on the continents, but on islands it is still more enigmatical—we only feel assured that we can never know how or when the savages first got there, or, in other words, that we shall never know more on that point than we do at present. If we suppose the continents to have furnished the islands, the people must have gone in decked vessels to those in the Great Pacific or Indian oceans, or to Australia, Van Diemen, or New Zealand. Now the mere circumstance of going in ships, implies a certain advancement in civilisation, and it would be wonderful indeed that they should ALL lose every trace or remnant of it so *completely*.

Leaving others to “cudgel their brains” in reconciling such anomalisms, I may remark that those islands have, more or less, their own peculiar brutes, and then comes the question, how did *they* get there? Surely the most religious person will not say that NOAH brought the emu, black swan, platypus or

kangaroo in the ark, for, if he did, those creatures would have been seen somewhere before the discovery of Australia. No! the Mosaic account was purposely confined to the then known world—any further information being, at the time, quite unnecessary.

But I am now concerned more about languages, and I reiterate my belief that man invented them. We find that ADAM, even when alone, *partly* composed the first, for God brought the beasts and fowls to him “to see what he would call them,” and he gave names to “every living creature.” How absurd then to dilate on grammar as if it were a science founded in Nature like music or astronomy! Why, so far from being a science, it can hardly claim to be an art. By an art we understand something generally applicable, unless where climate or other circumstances are opposed, but grammar has no extended sphere, as it is confined to a particular language, for what is good in one may be bad in another. Of this a thousand instances could be easily produced, but I shall give only one example, and that merely for the satisfaction of those who know no other than our native tongue. If there be anything like a fixed principle in grammar it is, that the verb must agree in number with the subject; and yet, besides *il y a* which answers for *there is* and *there are*, the French can “elegantly” say, according to their grammarians, “*Il est des hommes qui*,” &c. which is literally “There is

men who," &c. Observe, too, that this is not from any want or deficiency in their language, for, on other occasions, they use *are* in the usual way—it only serves to confirm grammar as being merely a local convention. It is in great part the arbitrary invention of rude, barbarous or savage men without any fixed rule, and to speak of it as an expansive study is perfectly ridiculous.

According to a Spanish writer, so late as 1851, there are now 3064 languages thus distributed:—

European	587 .
Asiatic	937
African	276
American	1264

All of these are differently grammared—no two alike in construction or syntax! But as no language was, or ever will be, planned at once, we can never know the precise origin or forming process, of any, because they all stole on, as it were, imperceptibly. In the youngest, which began by dialectical intermixtures, there is the same impenetrable obscurity; for who can tell how, why, when, or by whom the syntax of English or Italian was made out? Yet the people were then far advanced in civilisation, for English is not more than 800 years' old, and Italian somewhat under. Doctor Johnson dates the first recognition of English about 1154; and it is perhaps within 400 years when every Italian gentleman wrote to his equals or superiors in Latin, and used the rude ver-

nacular only when addressing his tradespeople or servants.

Nor can either of the classic tongues boast of their birth. We know that the Greeks were for many centuries barbarians, though, such was their pride, they wished it to be believed that they appeared in the world ready polished ! The Romans or rather the Latins were still more remote, and they formed their alphabet and language not only without any assistance from Greece but, extraordinary as it may seem now, without the knowledge that such a country existed, though they subjugated it in after times. The Greeks made many alterations, as did the Romans also, in their respective grammars, and similar changes are made by all civilised nations, though too often more for novelty than improvement. There is nothing stable in grammar no more than in pronunciation, which we know goes by fashion just like our clothes. As to tracing a cognation between savage tongues and the presumed Noahic, it must be always inconclusive and objectionable. For it would be indeed surprising if, in the immense extent of chance, a similarity or resemblance were not found in many words, but that establishes nothing decisive. It chiefly serves to make an imposing display of what is deemed profound learning—an extensive acquaintance with languages. But, though useless as to the professed object, it often elicits interesting facts—something like Mr. PETRIE's work on the Round

Towers of Ireland, which is a valuable addition to its annals, though great numbers reasonably disbelieve in the conclusion to which he has arrived, that they are of Christian origin. Sardinia has the advantage of a well authenticated history for many centuries B.C., and yet its almost innumerable truncated cones or towers are still unexplained, except as in reference to Buddhism which appears to have been, in the very early ages, the dominant *religion* throughout the greatest part of the then known world. I am aware that I have no right to touch on such matters here, but, having mentioned Mr. PETRIE's interesting work, I may be excused for adverting to a meeting of the Asiatic Society in London, June 21st, 1851. Mr. POTT there read a paper on the "Oriental Origin and Civilisation of Mexico," in which he adduced a "profusion of evidence" concerning rites, etc., including "some Irish traditions, and the Round Towers and their *origin*." We are perhaps, at last, near a solution of what has puzzled all antiquarians hitherto, and which is so intimately connected with the early history of the world. I have not seen any report of Mr. POTT's paper,

When men follow up with ardour any pursuit, however insignificant, they are sure to attach an importance to it far beyond its pretensions, and to see excellencies in it that are completely unfounded. This leads them to surround it with artificial difficulties for the purpose of giving it a consequential

appearance. We see this conspicuously in heraldry, whose admirers have actually exalted it to a science. Only think of towers and oak-trees issuing out of coronets; *demi*-lions alive and "proper," *gardant* and *regardant*; boars' heads "erased" or "couped," with wyverns, gryphons, cockatrices, dragons, hydras, and other fabulous monsters—only to think, I say, of such childish nonsense being called a science! Think of its being necessary to emblazon or describe colours and metals in the arms of sovereigns by the planets—those of nobility by precious stones, and those of commoners by certain words, as *gules*, *vert*, or, *argent*! When serious folly is here extended so far in downright tomfoolery, need we wonder that grammar should be promoted to the rank of science? In the days of armour, when knights and commanding officers went to battle with even their faces concealed by defensive vizors, they could only be known by the crest on their helmets, or the device on their shields. Heraldry was then of *some* use, and it should have been suffered to die a natural death when fire-arms threw armour out altogether. Its continuance now is a lamentable instance of human weakness, since a snug chimney-sweeper may *buy* a "coat of arms" here—on the continent heraldry is confined to the sovereign, and the nobles or higher ranks, which is less ridiculous.

How futile do all the attempts appear to trace a primæval or Noahic (qy. Noahite?) language, as the

fountain or great source! None but learned men have engaged in the investigation, and yet what is the result? It is that they all differ—some deciding for the Hebrew, others for the Persian or the Sanscrit, and the Rev. CHARLES FORSTER has lately written an entire book to prove that “Old Arabic” is the grand parent-tongue. It is certain that they cannot all be right. There is besides that great stumblingblock, Chinese, with its alleged antiquity of some four thousand centuries, which they appear constrained to dismiss too unceremoniously to satisfy their readers.

When one considers the extreme simplicity of our syntax, it seems surprising that so few speak English correctly. Leaving out the country altogether, and confining ourselves to London, it may be said that none of the reading lower orders speak grammatically; for, where an exception does occur, it generally turns out to be one of the superiorly-educated who, by misfortune or imprudence, had fallen to the tap-room. If we pass to the middle or better classes for correctness, one in twenty is rather too high an average, though educated in most respectable schools, kept by able masters; and, in short, it is among the higher ranks who, besides their spelling days, after spending some eight or ten years at a first-rate academy, and then graduating four more at a university—it is to these, I say, or to teachers, students, authors, or persons connected with the press, that we are to look for generally correct speaking.

Here I wish it to be understood, that I do not allude to critical points about which purists raise disputes more curious than useful—I mean only the common misuse of our pronouns, the past tenses and participles of our irregular verbs, or the active and neuter distinctions.

I admit that this *seems* surprising, but the cause is plain. Though our grammar is, perhaps, the simplest of any that is known, few will learn it while the common illusion is kept up about its difficulty. When the boy passes from his spelling-book and primer, he is appalled by what he hears of it. He cannot shut his ears to the hints about Greek and Latin being necessary, and, if he do not regard grammar as wholly unattainable, he thinks that a small knowledge of it is all that he can acquire. His emulative aspirations are thus damped or checked—they are nipped in the very bud, when he takes pride in showing his learning. It is too true that masters or professors do not like to teach what is avowedly simple, for, though they announce short methods, they leave its difficulties to be inferred. So, the artless, unstudied and *random* syntactical rules of languages are called GRAMMAR, and the word is invested with a high-sounding importance that is quite disheartening to ordinary capacities. I am satisfied that we should find a great difference if the truth were inculcated, THAT THERE IS NO SUCH THING AS "GRAMMAR" IN AN EXPANSIVE ACCEPTATION. Every language has

its own syntax, construction or grammar, but it is a monstrous imposition of pedantry to say, that grammar has an independent existence as a study or science. After some thousand years' research, philologists have only discovered that language is composed of nine, some say ten, sorts or classes of words called "parts of speech;" but, though they are a great aid in grammatical instruction, their particular functions often vary in different languages. Even in the main constituent principle, there is nothing immutably fixed, for Latin, known to be originally a barbarous tongue, contrives to dispense with the Article, and thus has one part of speech the less. As if this were not enough, down comes HORNE TOOKE with two quarto volumes to *prove*, that language is composed of only nouns and verbs, and that the other assumed "parts of speech" are worse than useless inventions arising from the too common propensity of man to render the simplest things puzzling! Yet, startling as TOOKE's doctrine seems, it can boast of many adherents.

How pitiable does the pedantic eulogiser of grammar appear, in any view, when the ground is actually slipping from under his feet! Surely the persons engaged in the "authorised version" of the Bible were fully adequate to their task. They were all eminently learned, and yet their work, though not two hundred and fifty years old, is *now* ungrammatical in perhaps half-a-dozen instances. So that, confined

as grammar is, to one language, we have nothing permanent even there, since changes are often obtruded without any necessity. The Bible was, and ever will be, a standard for the purity of English grammar at the time, but when alterations are, subsequently, adopted by the learned, opposition is folly, and acquiescence a duty.

Since grammar is then a set of rules laid down, by common consent, for connecting words so as to exhibit our true meaning or intention, we are required to know those rules, or we shall justly be deemed ignorant. This is particularly incumbent as to our own tongue, for it is most despicable to hear one of us boasting, in bad English, that he knows other languages. The instability of grammar is no excuse, for we are bound to know that of our own time. Orthoepey, though it should not be overlooked, is not nearly so important as grammar, for a man may speak very correctly with a clumsy pronunciation. Mr. WALKER, after observing, that it is entirely governed by the fashionable world, says; "that it is better to be wrong with the polite than right with the vulgar,"—a remark entitled to praise, at least for its honesty. We certainly should not have so many speaking incorrectly if grammar were taught as a set of common rules, for the youth would then be ashamed of his stupidity.

Many persons will, no doubt, think that I have said too much about language here, but I request

them to consider that it is a highly important part of the present inquiry, as it is our unique medium for the communication of thought, and is thus the expositor of Reason itself. Compelled to notice it, I could not, though at the risk of being tedious, avoid the exposure of what I regarded as its abuse.

As to the brutes, since instinct teaches nothing new, even the most intelligent have little to communicate, and they have also means, incomprehensible to us, of imparting that little to each other. This is not, however, confined to cries or sounds, for, if it were, fishes, and most insects and reptiles, would have no intercommunication, from which we cannot well suppose them to be wholly excluded.

CHAPTER VI.

ERRORS ABOUT FEAR AND OTHER SENSATIONS.

IN the best authors, both foreign and domestic, it is common to read that a man was "instinctively" seized with fear, terror, dread, fright, horror, or other sensations. This shows the necessity for something like a fixed definition of instinct. We all know, that

what would greatly terrify some men, would be viewed with perfect indifference by others. How then can we consistently apply instinct here, if the word be at all defined or clearly understood?

Our particular feelings are commonly fixed by early impressions or educational habits. Some children will amuse themselves by *harnessing* black beetles with threads to a paper cart, and making them draw; while others, whose parents or families are always expressing disgust at those insects, would be afraid to touch them. Hence arise what we call antipathies, with which it would be manifestly ridiculous to confound instinct. Some persons would go into fits if a mouse, black beetle, or spider, were thrown at them, which others would regard as only a mere annoyance. Some are so much afraid of ghosts, that they tremble in the dark, and, if they lie alone, they are fain to cover up their faces with the bedclothes; while I need not observe, that others have no fear of the dead, from a conviction that they are always very quiet in this world. We may perhaps assert that men are *generally*, for there are exceptions, afraid to go into battle for the first time, and that newly-raised militia, or raw troops, would gladly run away, only for the previous drilling, and the fear of their officers. But why do their officers stand firmly when they are equally inexperienced? It is because, being of a superior grade, they have higher notions of duty and honour, and, knowing

that they could not live comfortably in society if branded as poltrons, they make up their minds to face the danger. Every one knows that notorious cowards have been impelled to fight duels through the fear of losing their *status* as gentlemen of honour. Can instinct, as I have described it at the beginning, be at all associated with such proceedings?

Our notions of human courage are loose, vague, indeterminate and extravagant. Though I admit that it is commendable, I assert that it can be taught, or at least what answers for it equally well. When men offer to enlist, the recruiting sergeant only looks to the bodily qualifications, and notably to the marching powers if the service be infantry. He never dreams of inquiring whether they are cowardly or brave. That gives him no concern, because he knows that he can teach them courage, or what is in effect the same thing—to remain steady in the face of death and danger. Out of a thousand recruits he would not undertake to reform one immoral character, but he would readily engage, if allowed the necessary time for *schooling*, to make them all brave. Now if we only partly admit this, all ideas of instinctive courage, as far as regards man, are at once demolished, for I hope no one will deny that the Deity alone can give instinct.

I may be excused for mentioning Marshal BERESFORD, because he has never been praised as he

deserved. Early in the Peninsular war, he eminently distinguished himself as a courage-teacher, by making first-rate troops of the Portuguese who were, previously, beneath notice as soldiers. He put them, however, on the sepoy plan with British officers, to which Spanish pride would not submit; and consequently the armies of Spain were indifferent in the field, though excellent in guerilla service. The *Beresforded* Portuguese materially contributed to our successes. They fairly astonished the French who were often forced to flight by their impetuous bayonet charges, though, not long before, they used to rout them like sheep.

The Greeks were, collectively, the bravest people that the world ever produced, for they were reared up in the belief that life was not worth acceptance under a foreign or barbarous yoke. Courage and virtue were synonymous, for they held that a coward could not be virtuous. Every one knows the Grecian mother's ordinary command to her son, when handing him his shield on going to battle, "Return with it or on it;" and who has not heard of the memorable self-immolation under Leonidas? Yet those perfect models of courage were only circumstantially, not instinctively brave, for they eventually submitted to the Romans whom they regarded as barbarians. The brutes, being instinctively courageous, will generally fight their match,

and, in some cases, will go much beyond that as in defending their young, but, since man is never moved by instinct, his courage may be described as contingent or mechanical.

CHAPTER VII.

SWIFT'S "HOUYHNHNMS AND YAHOO."

If any one else but "the witty Dean" wrote this story, it would have immediately taken its place with our Jack the Giant-killers, Robin Hoods, or other wonderful tales for amusing children, instead of being regarded as an able satire against man's pretensions to superiority over the brutes. It is, altogether, a heap of monstrous inconsistencies. In the first place we could not, from our conformation, go on all-fours, and the horse was obviously a most unhappy selection for master. The elephant could do something with its proboscis, or the lion with its claws, but we cannot well imagine anything more *constructively* helpless than a hoof, and yet Gulliver gravely tells us that those horses built comfortable houses, and stocked them with convenient furniture. Nay that they had kitchens for cooking, as appears from the

lame old horse that came to dine with his master, and which took its oats warmed, while the *family* had theirs cold. He mentions a white mare engaged at sewing, and that he particularly admired her dexterity in threading her needle. This with hoofs! and then *who* made the needle? Was it hoofs that dug out the ore, smelted it, converted it into steel, and finally fashioned the needle? That no assistance was derived from the debased yahoos is plain, from the *act* decreeing their extermination as a nuisance, and from which Gulliver was alone exempted, and allowed to depart in a boat.

It would not be easy to imagine a more notable farrago of nonsense, as a gravely designed severe vilification. Horses could not be the ruling animals, for, supposing them to have Reason, man would soon destroy or force them into the forests for safety. They would not be so powerful as they are now with an armed man on their backs, and yet the most terrific cavalry charges are successfully repelled by veteran troops on foot. Baboons might seem to have the best chance as they could handle arms, but, though their long *fingers* are admirably adapted for climbing, they want our effective thumb and the consequent firm grasp, and we should surely overthrow them. It may be said, almost without hyperbole, that man's physical superiority lies in his thumbs—without them the moral power of his Reason would hardly suffice to rule the world.

As SWIFT holds up his houghnhnms or reasoning horses as paragons of wisdom, it is proper to notice that he describes the white, the sorrel and the iron-grey as *always* in the condition of servants, "without ever aspiring to match out of their own race, which in that country would be reckoned monstrous and unnatural." So much for SWIFT. FÉNÉLON has the same *liberal* opinions, for in *Tel.* b. 12, the sage Mentor (Minerva) advises King Idomeneus to divide his people into seven classes, to be distinguished by their dress. So much for FÉNÉLON. Such were, and still are, the amiable notions of philo-aristocrats as to a well-ordered society. What a pity that the "inferior" classes are so perverse as to mar them by ignorant assumptions of equality, and aversion to the *caste* system that keeps the Hindoo in such an enviable condition !

Since we are on the subject of horses, I may notice a prevailing vulgar belief—that such noble creatures would never submit to man only for the peculiar construction of their eyes, which magnify him to an enormous size. How preposterous is such a notion on common reflection ! For surely it would be absurd to suppose the horse to have one kind of sight for man, and another for all other objects. If a man were so *fearfully* magnified so would be everything else, and then the horse could never be brought to leap a five-barred gate, because it would appear to be the height of a two or three story house.

CHAPTER VIII.

PECULIAR CHARACTERISTICS OF MAN.

MAN is the only being that sings, laughs and dances. He has other exclusive characteristics that I shall now pass, as for instance self-murder, which, unfortunately for civilisation, belongs only to that *improved* state of human society.

SINGING.—Writers generally, if not universally, assert, that man learned singing or music from the birds, but that does not appear to be well sustained. Savages who could sing have been found in countries where there were no singing birds, but what could they learn even from “nature’s own musician,” the nightingale? Its notes and trills are such as they could never think of imitating, and besides it never approaches to anything like a regular strain. Its *song* is only a collection of detached notes, in no order to constitute a *key*, whatever its enthusiastic admirers may allege about its always ending on some appropriate note, as a sixth above, No. Neither nightingale nor any “songsters of the grove” ever taught man to sing. His song is a mode of giving a more than ordinarily forcible expression to his sentiments, through the usual medium of words, for the savage never thinks of singing without them. Indeed our own lower classes, who are not yet a musical people

like the Italians or Germans, do not relish instrumental pieces—they would hear one common song that they know in preference to the finest performances of the opera bands.

Music is a science founded in nature, and has its inscrutable LAWS like astronomy. Reason only can comprehend it, and it is, therefore, solely confined to man, for none of the birds know anything of it whatever. The blackbird approaches perhaps the nearest of any, for its diatonic *re, si, sol, ut (do)*, is, so far as it goes, a regular strain, with a key and meaning, and quite unlike the crude vagaries of the nightingale or canary, but still it is only a mere attempt or *inkling*, and on a lilliputian scale. The limitation of instinct is opposed to the vast variety and extent of music. It is confined to the expression of its sounds or *materials* in a detached manner, for to Reason alone was reserved the power of applying them to regular construction. I do not pretend that the savage does this, but still his rudest songs come nearer to what is more properly music than the most elaborate performances of the nightingale. But those who maintain that man learned music from the birds, are forced to admit, that they taught him nothing of the *minor*. No bird or beast ever whistled or cried in that mode, yet man naturally falls into it as he advances to civilisation. Some of the Welsh airs claim great antiquity. Those of Taliessin, traditionally preserved, are said to be about 1200 years old, and

are generally in the minor. At that period, the Welsh were certainly not what we call a polished people, but they were far removed from the primitive state, and, as Taliessin only followed his predecessors, the minor must have been a long time popular. The original music of Ireland is not so satisfactorily traced, but, though CAROLAN was only of last century, it is certain that he rescued a great part of the most ancient from oblivion, and that, in his own compositions, he caught its true spirit and style. Among those airs, many of the most favourite and admired are in the minor, though some are possibly older than the Christian era. Of Scotland I say nothing, because there is a controversy about the Rizzio "reformation" of its ancient music, into which I must not enter.

We cannot deny that the minor is equally important as the major. They represent the two great divisions of our feelings—joy and grief; for, though we have sometimes sprightly airs in the minor, it has always a certain plaintive character that strikes even an ordinary ear. It is no proof of its inferiority that there are *now* hundreds of airs or pieces in the major for one in the minor. We are more disposed to mirth than sorrow, and, if our remote ancestors were partial to the minor, it was because they were continually engaged in warfare, and had constantly to bewail the loss of their dearest friends and leaders. The minor shows some advancement, because it

requires an accidental flat or sharp. It is true that those, and also double flats and sharps, are only *relatively* half-tones, for, performed singly, they are whole notes, of which there are really only seven in the wonderful science of music! any attempt to go higher or lower producing only octave repetitions. A first essay would, however, be in the major, as the easier, because the simplest modulation is a step out of the common track.

I have been necessarily precise in my observations, because I have an important object in view. There is a propensity, too generally prevalent, to lower the pretensions of man, and to represent him as an imitative animal. I admit that he is to a certain extent, but he is also an inventive one. What had he to imitate in the bow and arrow? Nothing—for all the brutes use no arms except those with which nature supplies them. I might ask the same question as to language, fire, and numerous other things, but I am now concerned with music, and I reiterate my belief, that he learned nothing of it from birds. This tendency to depreciate Reason arises from its defects. Writers are offended at its generally imperfect state unless when raised by education, but this is not creditable to their judgment. The great LOCKE, and GREAT he unquestionably was, says, that there are some brutes that seem to have as much knowledge and reason as some that are called men—a peevish expression, elicited probably when he was vexed at

some gross instance of human stupidity. It is the variances in our understanding that constitute the charms of Reason; and LOCKE himself must have derived much satisfaction from the conviction, that he was so intellectually superior to other men. But, as this will be more particularly considered in the next chapter, I shall now only observe, that *real* music seems naturally intended for man, as he alone can audibly express both joy and grief. The brutes can forcibly evince anger, alarm, or pain, but not grief; for the dog is mute when he refuses food, and pines away on the death of a beloved master, and it watches his grave in silence.

LAUGHING.—On this there is no necessity to say more than that it is confined exclusively to man, and as to

DANCING, we all know that none of the brutes ever attempt it except when forced by us. We teach dogs, horses, camels, goats, bears, and monkeys, to go through an unmeaning kind of movement, but the task of tuition is exceedingly troublesome, while the result is only a coarse gratification at seeing how far nature can be distorted, or, perhaps, more properly caricatured. Dancing is common to all savages, for even the gloomy scalping Indians, who pride themselves on their gravity, will dance while inflicting excruciating tortures on their prisoners of war.

CHAPTER IX.

IMPERFECTION OF REASON.

FROM the imperfection of our Reason, some respectable writers have been induced to speak of it contemptuously, and to represent the brutes as far more favoured because they never fall into any absurdities; and that **THEY** only, when in their natural state, enjoy unalloyed happiness. This is, to say the least of it, a very inconsiderate theory. To imagine our Reason perfect involves an order of things entirely new. We cannot look for perfection here—that is to be expected only in another world. Our Reason, quite contrary to the fixed brute instincts, was evidently intended to be constantly *exercised*. As savages have Reason, they would, if it were perfect, always decide rightly, and then what difference would there be between them and us? There could be no advancement, progression, improvement, or melioration. The savage would be right in going naked, and could we be justified in wearing clothes, and—but the thing is altogether too ridiculous for serious discussion.

Such notions are every way erroneous and untenable. It is a gross fallacy that the brutes are happy. The smaller ones are in constant anxiety to avoid the larger that are seeking them for food, and these are again afraid of being seized by others of superior

power. If we turn to the sea we find it one continuous scene of mutual destruction—an immense expanse of slaughter! We see that even in England the birds of the air are kept in trouble by the hawk or kite and, as to the beasts that run wild, many of them have great difficulty in procuring food, and all of them are in danger and fear for their lives. The scene is not relieved by turning to the insects, for, the bee can live on flowers, the “gloomy” spider cannot exist without killing, and the principal food of some birds is bees. Indeed the insects present anything but a picture of happiness. They are chiefly designed as food for other creatures, and, from their weakness, they often suffer great torture, as we see by flies that fall on the water, on milk, mustard, and other liquids. Like the turtle, the black beetle when overturned, cannot get off its back, and unless the insect then work itself over to some projection which it can grasp with its long legs, it dies as miserably as can be well imagined, for it will get no assistance from its congeners.

If we suppose the brutes that fear no enemy to enjoy unalloyed happiness, investigation will discover its fallacy. We shall, therefore, take the eagle, the king of birds, which, at least in these countries, fears no enemy, and yet it must be sorely pressed by hunger when it ventures to take a lamb from our well-watched grounds. In April, 1851, an enormously large one alighted, or rather fell, on a field in England, I forgot

the county, and it was so exhausted by hunger, or long travelling in quest of food, that, being unable to rise, it was easily killed by a peasant and his dog. Its history proves that it occasionally suffers much from hunger, and that it gorges itself to such stupifying excess, when it lights on a superfluity of food, that instances are known of its being knocked down and killed by a boy. The "king of birds" is not, therefore, an emblem of happiness.

We turn to fishes, and we may perhaps assert that the shark fears no enemy, but it is afflicted with an almost insatiable voracity, and, as it requires a large quantity, it seldom has a full meal. It is said to delight in human flesh, but, as it rarely gets a naked man, it is compelled to swallow his boots, clothes, watch, knives, keys, tobacco-box, or other things in his pockets, with which it would gladly dispense. Who would then be a shark?

The lion is justly called the king of beasts, for it fearlessly reigns as the monarch of the forest. Yet, notwithstanding its prodigious and resistless strength, its state is far from being an enviable one. Doomed to prowl only by night, and then to announce itself by that terrific roar which is a signal for all the animals on which it preys to seek safety in flight or concealment, it is sometimes surprised by morning without getting a morsel. We are assured that it occasionally passes days together without food, and it is even circumscribed in free agency. For, being

naturally thirsty, it must have its haunt or den contiguous to some stream or river, and thus the choice of range is somewhat limited. I ask who would be a lion?

Bulk is no protection as we see by the whale. Unable to get at any part of its enormous body, it is sometimes almost maddened by its plague, the whale-louse—insomuch that it has recklessly run against a reef or projecting rocks, in the vain attempt to obtain relief by crushing its tormentors. But that, as may be easily conjectured, does more injury to itself than to them.

All the brutes appear to have, more or less, their troubles and vexations. If the herbaceous get their food easier than the carnivorous, they are otherwise more annoyed. During a part of the year in Ceylon, the innumerable flying insects bite them so severely that they are forced to remain nearly all day in the water up to their noses, and cannot go to feed or rest with any ease or pleasure till sunset. Now that must be great misery, for, though brutes do not think, their bodily feelings are as strong as ours. In short their inevitable sufferings are a good part of their history, and I shall pass to what seems to us as gratuitous cruelty on their own part. Dogs and other animals will kill rats wherever they see them, not for food, but as if they knew that a diminution of their numbers was a common benefit. Cats kill mice and birds to eat, but they destroy insects and

E all such small creatures more commonly for their pleasure; and every one knows how wantonly they torment the mouse before devouring it alive. Considering that they rarely eat any part of a rat, as that commonly sickens them, it is surprising with what unwearied perseverance they watch any opportunity of killing it, which often severely tries their strength. The Shrike, of which there are above fifty specimens in the British Museum, is called the "Butcher bird" from its cruelty, though it is not of the large class. It feeds on various insects, young frogs, and even small birds, which it invariably sticks on thorns, and picks away at its leisure. We may easily conceive the agonies of its victims while thus impaled alive, and torn asunder piecemeal. Queer kind of happiness that! Then there is another bird, whose name I forget, which, being purely carnivorous, does not eat insects, but it catches and sticks them on thorns as a lure for the smaller birds that feed on them; and, lying in ambush itself near the tree, it suddenly springs out and seizes one of the unsuspecting group.

But truly compassion seems to be very sparingly distributed among the brutes. When ladies rapturously extol the "innocent" birds for so diligently feeding their young, they forget that those *gentle* creatures unmercifully break live worms, and other insects, in pieces for mere convenience. In fact there is no cruelty or unfair advantage unknown to the

brutes, except such as requires art or thought. There is the hamster or short-tailed mountain rat, that actually carries on, with only occasional intermissions, an internecine war—insomuch that extermination would ensue if the female did not fight in self-defence, and save itself and its young by killing the male. The Rev. E. DIXON states in his “Dovecote and Aviary” (Murray, 1851), that Surgeon RAYNER of Uxbridge, kept kingfishers in a large wire aviary, and that he had seven nests of them till the following spring, “when battles ensue which are kept up incessantly until only one remains the victor.” Surgeon R. adds, “I have watched them pursuing each other until at last, by one grand dart, the one has transfixed the other to the ground, and flown away triumphant.” Now, though kingfishers would not, because they could not, do this in freedom, it shews how strongly the instinct inclines, in those birds, to tyrannical mastery. The revoltingly murderous wolf, when got into the fold, not contented with supping to satiety on delicious mutton, most wonton and uselessly kills as many of the sheep afterwards as its gorged state leaves it power to accomplish.

Some insects lay their eggs in dead flesh, others on the bodies of beasts that lick them off, and thus convey them to their stomachs where they are vivified, while some force them *into* the living bodies of other creatures. Of this last *process*, the author of

"A voyage to the Mauritius" gives an instance that is appalling, though only insects are concerned. My readers will, I think, be obliged to me for not abridging his graphical and animated description :—

Although the cockroaches abounded inconveniently at the Mauritius, it was not without pity that I saw them consigned, as they frequently were, to a living grave, by a wicked-looking insect much resembling a Spanish fly. It was impossible to witness his proceedings, combined with his glittering blue and green dress, without imagining the elfish demon of a pantomime leading an innocent victim to perpetual entombment in some haunted cavern. Let the cockroach be moving never so briskly across the wall, he has no sooner caught sight of the fatal insect—not a quarter of his size—than all his energy leaves him, and he stands stupidly resigned. The fly then walks up to him, looks him hard in the face, and presently, putting forth some apparatus which stands him in the place of a thumb, gently takes the cockroach by the nose, and leads him daintily along for a foot or two. Leaving him there, he commences a thorough examination of the neighbourhood, beating the ground up and down like a well-trained setter, and not finding what he wants, returns to the cockroach, and leads him on a little further, when the same process is gone through, sometimes for hours, till the whole wall has been examined. Chinks there are in plenty, but they do not suit him ; he has taken the measure of the victim's bulk, and means to lodge him commodiously. Presently a suitable hole is found, and the fly, moving backward, gently pulls the cockroach after him into his last home. What horrors are perpetrated in this dark recess cannot be more than surmised. The object is undoubtedly to engage him as a wet nurse. No doubt the poor cockroach is bored in some part not vital, and eggs are laid in him ; a purpose

indeed for which his succulent and motherly frame seems peculiarly adapted. And, not improbably, during this vicarious incubation, he is supplied with food, until the young, of whom he is pregnant, being hatched, commence, in return for his services, to "gnaw his bowels, their repast." It is in vain that during the scene above described you urge the cockroach to seek safety in flight. The poke of a stick is disregarded; he seems dead to all hints; nay, move him to another part of the wall, he waits there with the same stolid indifference the return of his tormentor. Probably a sly thrust is given him in the first meeting of noses, or some "leprous distilment" dropped in his ear; for he has entirely the air of being hocussed.

Here is truly a "chamber of horrors!" What will our brute happiness dreamers say to this? I rather think that they would bear "all the ills that flesh is heir to" sooner than exchange with our devoted cockroach; and how humiliated must they appear when told that, if such a thing as brute happiness do exist, it is to be found among the beasts or fowls that man rears for his own use. And yet this is true. I do not speak of cats or dogs, or of horses, asses, or those that he works, which he too commonly uses barbarously, but of black cattle, sheep, goats, pigs, fowls, or such as he keeps for food. They have everything that they desire. The greatest attention is paid to their general comfort and accommodation, and they are in perfect security from the ferocious beasts of the forest. That they are as happy as brutes can be is undeniable, for, whatever may be said of

their natural inclination to activity, they dearly love and enjoy their ease. Let us have no affected puling about the selfish inhumanity of fattening them for slaughter, which is too mawkish at the present day, because it has no sincerity whatever, for not one of those whiners would refrain from meat through humanity. The brutes were originally given up by their Creator to the "dominion" of man for his *use* and, with this design, they were *necessarily* excluded from Reason. As to death by the butcher, it is probably less painful than that which they would experience in the forest, whether natural or violent. That they are "made to be taken and destroyed" we can cite Peter, 2nd Epist. ii. 12.

The alleged superior happiness of the brutes will not stand the most common investigation. During very rigorous winters they suffer great miseries, and every old farmer can tell us that the birds are then found by hundreds dead or dying of cold and hunger in the fields. But, in the midst of this distress, *unhappy* man is, by his providence, plentifully supplied with provisions and comfortable shelter, while the only beasts or birds that enjoy such advantages are those that he takes under his protection.

As the instances of brute "cruelty" mentioned are instincts, I make no apology for dwelling on them so particularly, and, as to the happiness theory, I flatter myself to do some service by its simple exposition. Any attempt to raise the brutes at our expense must

fail. Man will ever be found the ruler. In vain the intelligence of the elephant, beaver, dog or be held up as superior—the naked, houseless, ignorant savage will be their master. It does therefore, show much sense to rail against the order of nature; and we shall find that the most extensive consideration leads but to this fact—that the brutes are *universally* happier than we in only one instance—that of having no anxiety about a future state.

BUFFON had not the weakness to give into “brute-happiness” incongruity, and he particularly remarks that the woodpecker, from its severe and almost incessant toils, leads a miserable life. In this he is, of course, censured by our brute-exalteds who have no other argument, however, except that the bird would not take so much trouble did it not find a pleasure in the performance. How this exposes their ignorance of instinct! Where it is strong it *must* be obeyed, and are not they the very persons who tell us of some dishonest crows, as mentioned on page 22, that steal sticks from other’s nests, in the absence of the parents, to save themselves trouble in constructing their own? But why, then, constraining any? Because that they must do, for instinct is inexorable, but it is plain that they would, if they could, evade the labour, and that it is a duty or obligation more than a pleasure.


For those who are dissatisfied with the reigning order of animated nature, there is no necessity

expatiate on the grander departments of creation,—the insignificant flea will, I respectfully submit, afford reflection sufficient to set their disturbing inquietude at rest. Observation has ascertained that it can jump eight hundred times its own height, and, if we suppose man to have the same *relative* power—and who can doubt that he might, did it seem meet to the great Creator?—he could be at the top of Mont Blanc in three skips from its base ! When we consider that the very small body of the flea is amply furnished with all the complicated members and organs necessary for carrying on the functions of life ; when the microscope shows us that it is itself annoyed by other fleas or insects proportionally minute, and yet also “fearfully and wonderfully made ;” when we feel convinced that this astounding exiguity is carried downwards, with the same inconceivable perfection, to an extent that utterly confounds the boldest stretches of our imagination—I say, when we consider how stupendous must be the power that can accomplish such wondrous works, does it not appear presumptuous, if not impious, to oppose our feeble judgment to the inscrutable wisdom of Omnipotence, by fancying any improvement necessary in the arrangements of an almighty God ?

CHAPTER X.

MADNESS.

THE more new points in which I view Reason, the more I am surprised how any one can raise a doubt of its being exclusively confined to man. No writer on the present subject has, I believe, touched on madness, and yet it is a strong elucidator. Whatever learning may be expended on definitions, they will come to the ordinary conclusion, that ours is a derangement, suspension, or what is called a deprivation of Reason. Let us compare it with that of the beasts or quadrupeds. The dog runs ahead, biting at all in its way, and, if not stopped, dies of mere exhaustion. It loses all conduct or guidance, nor has it any intermediate degrees; it is either decidedly, or it is not at all, mad. Now man has so many kinds of madness, that he is sometimes only weakminded, or absurdly eccentric, but we will take him as ungovernably mad, and necessarily under the greatest restrictions. Even in that state he has sometimes feigned mildness and submission, imposed on his keeper so as to throw him completely off his guard, and, when allowed some relaxation, has treacherously murdered him or others. It thus seems that thought cannot be destroyed while there is active life, and, as thought is the mainspring of Reason, it follows that



Reason is indestructible except by insensibility or death.

Madness in brutes appears to be confined to the beasts. We have no confirmed accounts of it in birds ; and as to insects, fishes, or reptiles, none has ever been observed. Indeed the lower the scale, the less probability of madness, because, to use common language, there is little or nothing to madden. We cannot well suppose flies or worms capable of madness, and we must fairly laugh at the idea of it in the oyster, which is restricted to its shell, and whose head or mouth we have not yet clearly discovered. Birds are said to show symptoms of madness, as the hawk under tuition, but it would appear to be rather an epileptic affection, for they have sometimes suddenly dropped dead from the perch in their cages. Turkeys and other domestic fowls have gone mad when bitten by rabid dogs, but that is only the *effect* of the virus, as the poison from serpents. Incipient madness seems to belong only to the beasts, and, even amongst them, chiefly to the canine kind, and to the cat, without including other felines. We often, indeed, hear of mad bulls and cows, and it is common for people in the country to warn strangers to avoid their fields, but they are not mad—they are only of furious *dispositions*. If mad, their career would be brief, and they would not suffer any one to approach them ; but they live as long as usual, and do no harm to certain persons well known to them. I admit

that bulls, when under the inhuman *sport* of baiting, have been forced into madness, but that can hardly be called incipient madness ; it may perhaps be more properly designated unnatural.

Having said that there are no intermediate degrees in brute madness, an explanation may be necessary to prevent cavils. Men have got the hydrophobia, and died of it, from being slightly bitten by irritated dogs or cats that were not mad. They were only so excited or angry as to generate the fatal virus at the time, and it is, therefore, always dangerous to meddle with offended cats or dogs unless protected by strong gloves. The symptoms of approaching canine madness are that the dog becomes unwontingly listless, drowsy, snappish, and indifferent to food, for a few days, when it takes to flight ; and then the first victim of its fatal bite would be its master, if he chanced to come in the way. As cats commonly go mad through being bitten by rabid dogs, the symptoms of the incipient malady in them have not, I believe, been particularly observed, but there is always danger from their bite when their ire is roused. It may not be unuseful here to mention an instance that I know as too well authenticated. A man had a cat and dog that were on the closest terms of friendship, for they eat, played, and slept, together. One day he found the cat growling, and spitting and clawing, at the dog, which was trying to pull it from off a chair, in order to have some play. Seeing it to be angry he

removed it, but, in doing that, it bit him in the finger so as to draw blood slightly. This he did not mind, especially as there was no change in the cat, which went about, and played with the dog, as usual, but, in a few days, the fatal symptoms appeared, and he died raging mad. This deserves the most serious consideration. The dog had often before pulled the cat from the chair in sport, and no one could, under all the circumstances, for a moment suspect any danger from interference. But cats have their humours like ourselves. The animal was not, at this time, "i' th' vein" for play; and, as the dog persevered, it became so irascible as to bring the virus into operation. On other occasions there is no danger. If you offer a bit of meat, in your fingers, to some cats and dogs, they will take it gently, while others will snap at it so suddenly as to cut you and draw blood. But there is no danger here, because the animals are not angry. The safest plan is, however, to be cautious in presenting the naked hand to either cat or dog, when they are under the slightest excitation.

Hydrophobia is unknown in Quito, though under the equator, and the inhabitants there, on hearing it described, justly congratulate themselves on their exemption from such a horrible affliction. This is remarkable because, in Europe, the danger is in the canicular or dog-days, as it is then that the canine species are most apt to go incipiently mad. Yet the

greatest heat, even of Italy, must be moderate in comparison to that of Quito, though it is necessarily much cooled by the vast plain being nine thousand feet above the level of the sea.

I think it will be found, on diligent comparison that the difference in human and brute madness is, of itself alone, sufficient to prove that the brutes have no pretensions whatever to Reason. They lose, at once, all their powers of conduct, while man has such various shades of derangement that he is, sometimes, quite sane except a particular subject be touched. I do not take hydrophobia into account here, because that is transfused into the blood like the poison from a rattlesnake, and is therefore foreign to man. If we tie a saucepan, or any rattling thing, to a dog, so as to trail behind, and set it down on an open road, it will run mad unless soon stopped in its career. This is, excepting the elephant, reputed to be the most intelligent of all the brutes, and to evince the largest share of "reasoning"; and yet what a contrast to common sense does it here exhibit! Were a similar trick played on the savage, or the simplest peasant-boy, neither of them would run mad. No. They would immediately proceed to cut the string or fastening, and which the dog could also do very easily with its teeth, if it had only a glimmering of intellect; and still learned writers do not hesitate to assert that it sometimes gives proofs of ratiocination, or of the understanding that belongs solely to man! *Credat*

Judicious. But to conclude—there is, in short, such a striking variance between his madness and that of the brutes, as seems to demonstrate that they are wholly excluded from an approach to even the confines of Reason.

IN concluding this treatise, I may observe that, when I first contemplated it, I believed myself totally inadequate to the undertaking. I thought that it required a refinement of language beyond my reach, and that I never could express what I meant. This fear is common with those who know that they have no elegance or abundant choice of words, but I can now safely recommend them to do as I did—make a beginning. Having ventured on that, after many waverings, I was agreeably surprised to find that the difficulties vanished more rapidly than I could have previously believed. We can always express, in plain language, what we clearly understand ourselves; it is only when we attempt flights beyond our intellectual strength that we experience a deficiency of expression, and we should take it as a friendly hint that we are approaching unsafe regions.

But, though I have contrived to explain my design intelligibly, I have not been able to give it the graduated order and consecutive regularity that mark the superior writer. To him I can offer it, therefore.

only as an assistance towards arranging a methodical system. In that view it will be very serviceable, as I have removed a great deal of obstructive rubbish. I have boldly, though I hope not temerarily, endeavoured to free descriptive instinct from its trammels, and to substitute a decided for a doubtful character. Deeming it to belong solely and exclusively to the brutes, I have tried to separate it from their other *faculties*, and, most particularly, to leave man *entirely* dependent on his Reason. All this was not, however, a very simple undertaking for me, because, as my name would not carry weight for an ordinary volume, I was forced to assiduous, and sometimes not the most agreeable, conciseness. I have, consequently, only slightly touched on some points, and left others wholly unnoticed, which might be a considerable support to my explanations, and perhaps save me from some censures. But, whatever may be thought of the loose, rambling, and, I fear, too commonly imperfect, manner in which I have executed my task, I believe that I have laid the foundation for a better *literary* distribution of Reason and Instinct than any that has, to my knowledge, hitherto appeared. Nor can I help deriving great confidence from the last chapters of the first and second parts. In that on Surmised Reason, I think I have shown why the brutes have no pretensions to Reason; and, in that on Madness, I have further

confirmed it by an illustration that appears to me conclusive. But I am forgetting myself! What an author thinks of his work avails nothing. It is the public that are to pronounce on its merits, and they will not be swayed by his parental commentaries. Probably they may decide, that I have not found the desideratum so anxiously sought—A DEFINITIVE SEPARATION OF INSTINCT AND REASON.

The following was sent too late for insertion in its proper place :—

THE "MENTAL MUSCLE."—Dr. W. V. PETTIGREW, in his Optical Lecture on 20th Nov. last, at the Whittington Club, described a muscle situated inside between the eyes, which he regarded as the "mental muscle," because it is found only in man; and is strongly developed *exteriorly* also in persons of extraordinary intellect, so as to form a prominence, or vertical ridge, just above the nose. He exhibited a cast of SIR ISAAC NEWTON's face, taken as he lay dead, in which it was particularly distinguished. I may observe that this is remarkable, because it is now well known that, during the last forty years of his life, Sir ISAAC was in a state of imbecility compared to his previous vigour, and yet the mark of former genius suffered no diminution. Very witty persons too have it more or less conspicuously—it

was in high relief on the celebrated JOHN PHILPOT CURRAN. Dr. PETTIGREW laid great stress, as well he might, on the FACT, that no trace whatever of this muscle can be discovered in any of the brutes; and I think that, as a sign of Reason, the want of it ought to satisfy those who would award them understanding or intellect.

I am not sure, whether Dr. PETTIGREW intimated that he first observed this mental or *reasoning* muscle, and subsequently its invariable absence in the brutes; but, if he can claim the originality, he may justly pride himself on having made an IMPORTANT DISCOVERY; for it seems destined to establish the impossibility of the brutes having any pretensions to ratiocination or reasoning. It is much more satisfactory than any conclusions from the brain-chamber, because, as the brutes have brains, the question then turns on the comparatively superior quantity in man; and leaves the field open for those doubts that have, hitherto, so discredibly obscured our views of Natural History. But the "mental muscle" being confined to man, and regularly developed in proportion to the share of intellect, has a decisive character that must, eventually, carry general conviction.

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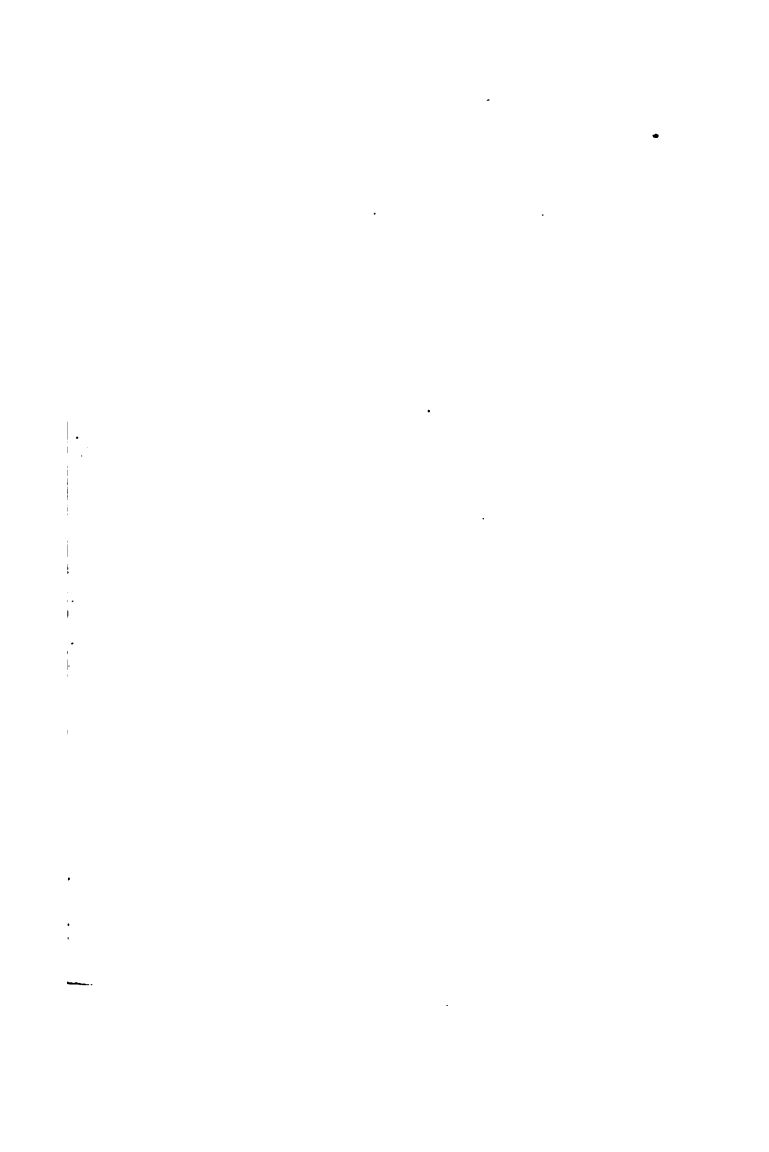
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